

Parent Guide



@twinklparents

We're excited to share this activity with you. If you are interested in finding more exciting, fun and interesting activities for you and your children, then check out these links to different areas of the [Twinkl Parents](#) website.

games



crafts



puzzles



experiments



word searches



What is this resource and how do I use it?

These mats are a brilliant way for your child to practise answering the types of questions they might encounter in their 11+ tests. They feature a variety of verbal reasoning, non-verbal reasoning and maths questions. They're presented as activity mats, rather than test papers. Simply print your choice of mats, then your child can get practising.

What skills does this practise?

Maths

Verbal Reasoning

Non-Verbal Reasoning

Reading

Further Activity Ideas and Suggestions

If your child is getting ready for their 11+ tests, take a look at [this section](#) of the [Parents Hub](#) for more information and helpful resources. There's this [Parent Guide to 11+ Exams](#) as well as this [11+ Survival Guide for Parents/Carers Guide](#).

Parents Blog



Twinkl Kids' TV



Homework Help



twinkl

Parents Hub

11+ Activity Mat 1

Verbal Reasoning

Place a letter in the box. This should complete the word in front of the box and begin the word after the box.

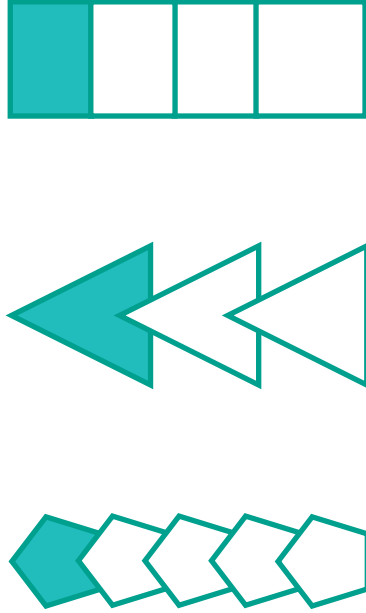
FAC DIT

TUR EXT

LAM IRD

Non-Verbal Reasoning

Look at these three figures. They are alike in one or more ways.

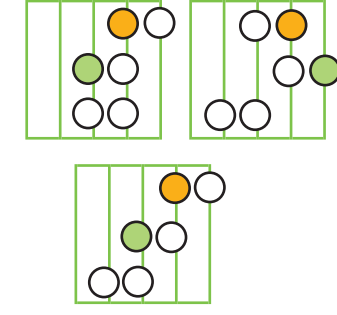
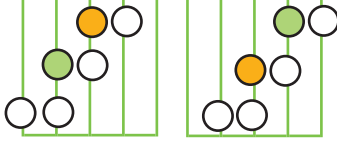
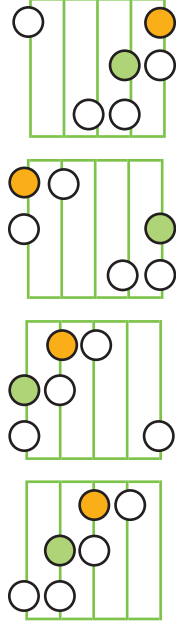


Choose which of these five options is most like the three figures.



Non-Verbal Reasoning

Look at this sequence. Choose which square would come next in the sequence.



Maths

Year 5 and year 6 are split into red, yellow and blue teams. The number of points won by each team are shown in the table. How many points did the blue team win in total?

Team	Year 5	Year 6	Total
Red	41	34	75
Yellow	28	28	56
Blue		40	
Total	95	102	

Maths

Multiply each of these numbers by 100.

Number Multiplied by 100

0.241

20.4

4.01

Verbal Reasoning

Move a letter from the first five-letter word and add it to the second three-letter word to make two new four-letter words. The order of the letters cannot be changed.

later ear

patch all

lamps for

twinkl

11+ Activity Mat 2

Verbal Reasoning

Choose the two words from each group that are the closest in meaning.

far, near, sky, distant, mountain

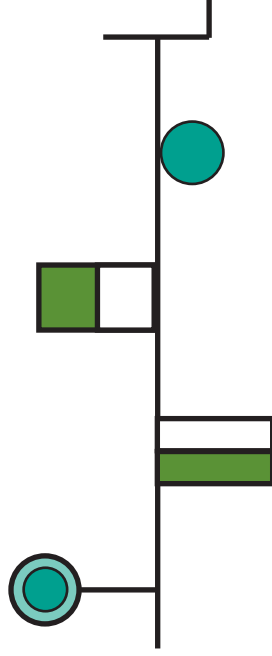
chatty, caring, skilful, kind, gentle

cup, plate, bowl, tea, mug

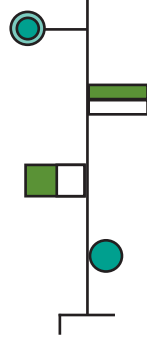
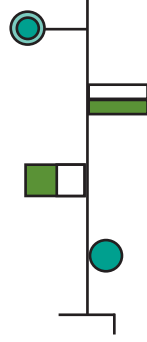
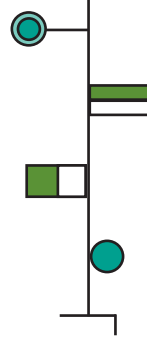


Non-Verbal Reasoning

Look at this figure.

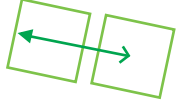
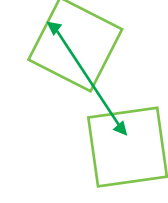
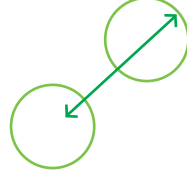
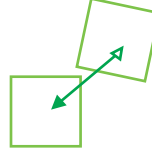
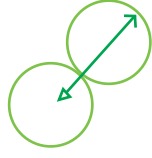


Which of these options is a reflection of this figure?



Non-Verbal Reasoning

Which figure is the odd one out?



Maths

Round the following numbers to the nearest thousand.

Number	Rounded to the nearest 1000
3 490 785	
5 949 951	
2 762 415	

Maths

For every 4 eggs, Kira needs 140g of flour. If Kira uses 10 eggs, how much flour is needed?

Verbal Reasoning

Underline two words, one from each group, that will complete the sentence in the best way.

Car is to road/fast/wheels as train is to long/track/station.

Turret is to flag/castle/knight as chimney is to soot/smoke/house.

Sugar is to sticky/sweet/dessert as lemon is to fruit/sour/pancakes.

11+ Activity Mat 3

Verbal Reasoning

Mark two words, one from each set of brackets, that have the most similar meaning.

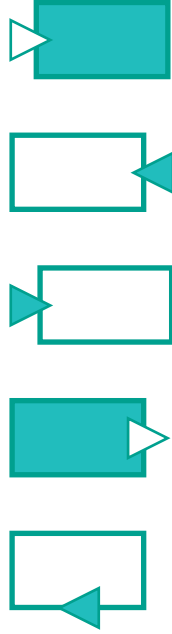
(money, worth, cost) (value, collect, treasure)
 (clever, clean, honest) (kind, noble, genuine)
 (comfortable, relaxed, pleased) (interested, glad, fortunate)

Non-Verbal Reasoning

Look at how the first shape changes to become the second shape.

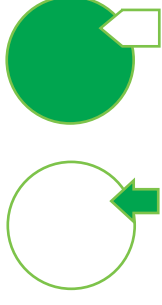
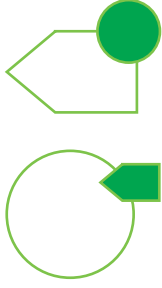
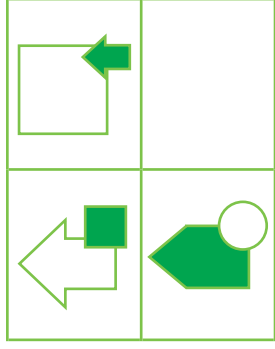


Work out which option would look like the third shape if you changed it in the same way.



Non-Verbal Reasoning

Look at this grid. Which figure should replace the empty square?



Maths

Can you solve these fractions and percentages problems?

How many thirds are there in the number 15?

5 10 30 45 60

Which of these improper fractions is the same as $5\frac{2}{5}$?

$\frac{27}{5}$ $\frac{7}{5}$ $\frac{10}{5}$ $\frac{10}{25}$ $\frac{30}{5}$

Which percentage is the same as $\frac{11}{20}$?

11% 20% 40% 55% 65%

Maths

There are 36 toothbrushes in a box. In one day, a toothbrush manufacturer fills 2594 boxes. How many toothbrushes is this altogether?

Verbal Reasoning

In each of the following sentences, see if you can find a four-letter word hidden between two words. The two words will always be next to each other.

The energetic hare stopped and waited in the grass.

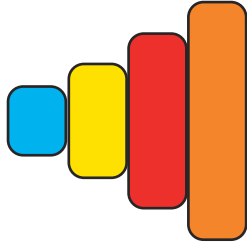
The towering tree cast a deep shadow nearby.

The wise dragon emerged from the cramped cave.

11+ Activity Mat 4

Non-Verbal Reasoning

Look at this stack of objects.
Work out which of these is the view from above.



Verbal Reasoning

Choose two words, one from each group, that are the most opposite in meaning.

- (under, low, floor) (wall, beside, over)
- (play, attack, weapon) (run, cooperate, defend)
- (sky, light, day) (night, empty, moon)

Non-Verbal Reasoning

These shapes have code letters that describe them.



GL



KX



JP



HL

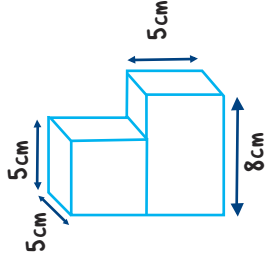
You need to work out what the code letters mean. Now, work out which code describes this shape.



KL JX KP JL HP

Maths

This picture shows a cube on top of a cuboid. What is the total volume of the shapes?



Maths

Three chocolate bars cost £1.60. What is the cost of nine chocolate bars?

£3.60 £4.80 £7.20 £9.60 £14.40

Two pizzas cost £19.00. What is the cost of five pizzas?

£38.00 £45.00 £47.50 £49.00 £57.00

Three bags of rice cost £1.35. What is the cost of ten bags?

£4.70 £10.35 £4.50 £6.30 £13.50

Verbal Reasoning

If $A = 17$, $B = 19$, $C = 26$, $D = 31$ and $E = 12$, what is the answer to the sum written as a letter?

$$D - A + E =$$

If $A = 18$, $B = 16$, $C = 19$, $D = 20$ and $E = 17$, what is the answer to the sum written as a letter?

$$C + E - B =$$

If $A = 6$, $B = 10$, $C = 9$, $D = 7$ and $E = 11$, what is the answer to the sum written as a letter?

$$E + A - D =$$

11+ Activity Mat 5

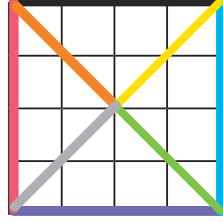
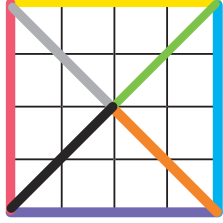
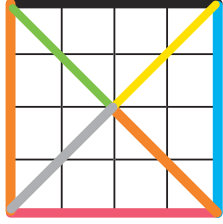
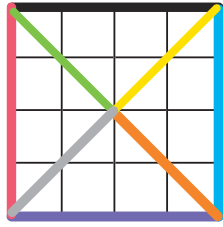
Verbal Reasoning

Choose two words (one from each group) that, when put together, will make a new correctly spelt word. The word from the first group will always come first in the answer.

- (sea, wave, surf) (mother, father, son)
- (hand, elbow, arm) (sit, run, stand)
- (up, tall, under) (rock, beat, sound)

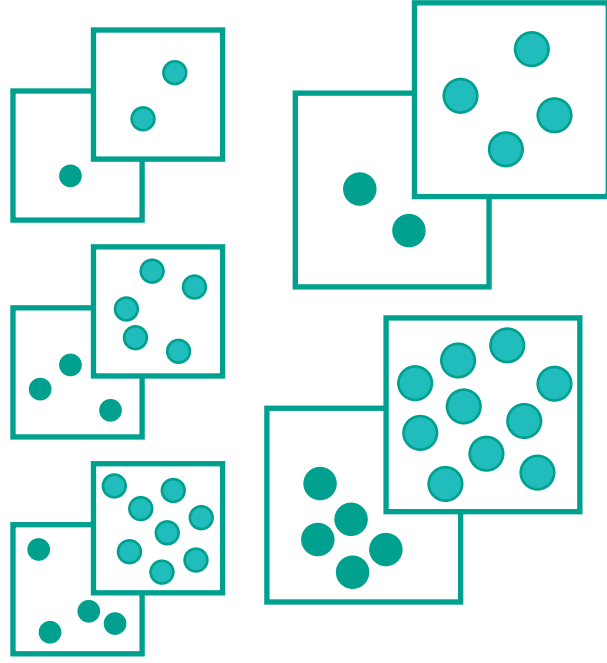
Non-Verbal Reasoning

Look at this 3D figure. Work out which option is a top-down 2D view of the 3D figure.



Non-Verbal Reasoning

Which of these figures is the odd one out?



Maths

What is the value of a in this equation?

$$6a = 18 \quad / \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

What is the value of b in this equation?

$$4b + 2 = 22 \quad / \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

What is the value of c in this equation?

$$c^2 = 49 \quad / \quad 5 \quad 6 \quad 7 \quad 8 \quad 9$$

Maths

- Ali thinks of a number. He multiplies it by 7, adds 8 and then divides it by 2. What was the number he started with?

Verbal Reasoning

Use the alphabet to help you work out the answer to each question. You will need to work out a different code for each question.

If the code for CAT is DBU, what is EPH the code for?

If the code for STORY is RSNQX, what is the code for MAGIC?

If the code for DOOM is FMQK, what does MGPE mean?

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z

11+ Activity Mat 6

Verbal Reasoning

In each group of words, three of them go together. Which two words do not belong with the other three?

yellow, blue, paint, red, brush

earthworm, frog, centipede, turtle, spider

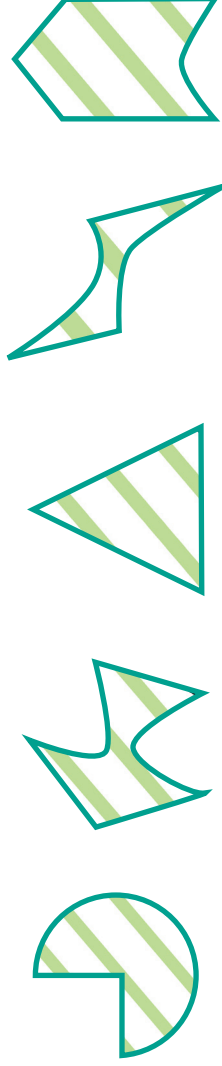
dawdle, saunter, hurry, sprint, dash

Non-Verbal Reasoning

Look at these three figures.

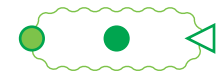
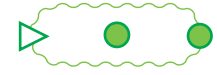
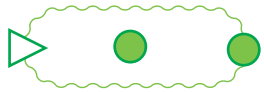


Find which of these five figures is most like the three figures.



Non-Verbal Reasoning

Look at this sequence of figures. Which of these figures should fill the empty space?



Maths

What is 100×32.05 ?

3.205 320.5 3020.5 3205 32 050

What is 1000×4.091 ?

4910 4091 409.1 40 910 41901

What is $562 \div 1000$?

56.2 0.562 5.602 5.62 5.062

Maths

This honeycomb pattern is made up of regular hexagons. The length of each side of the hexagons is 2 cm. Calculate the distance around the outer edge of this shape.



Verbal Reasoning

Choose two words that must change places so that the sentence makes sense.

Have your cleaned you room today?

School is wear we where our uniforms.

Are favourite colours our pink and green.

11+ Activity Mat 7

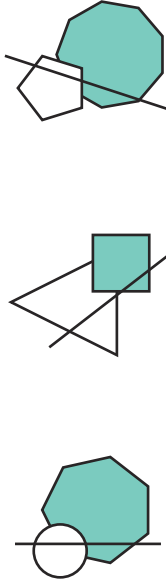
Verbal Reasoning

Place a letter in the box. This should complete the word in front of the box and begin the word after the box.

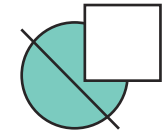
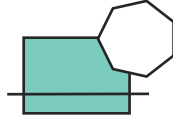
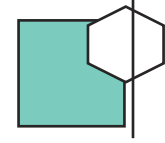
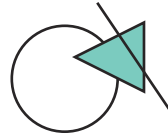
- FAC ABLE
 FORU ANOR
 FIR VER

Non-Verbal Reasoning

Look at these three figures. They are alike in one or more ways.

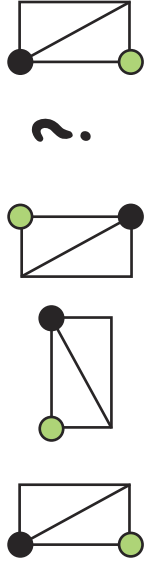


Choose which of these five options is most like the three figures.



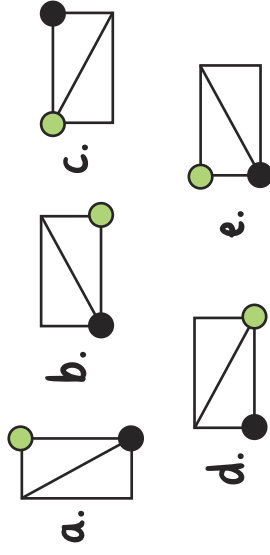
Non-Verbal Reasoning

Look at this sequence.



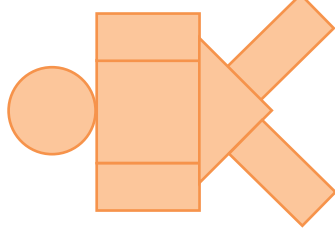
?

Can you select the missing shape?



Maths

Jesse has used some paper shapes to make this robot picture. The squares have sides of 6cm and the circles have an area of 10cm^2 . He has cut some shapes in half. What is the area of the robot?



*not to scale

Maths

The circle has been divided into equal parts. What fraction of the shape has been drawn on?



- a. $\frac{1}{3}$ b. $\frac{5}{18}$ c. $\frac{5}{8}$
 d. $\frac{6}{9}$ e. $\frac{3}{8}$

Verbal Reasoning

Move a letter from the first five-letter word and add it to the second three-letter word to make two new four-letter words. The order of the letters cannot be changed.

peace bit

beacon vent

snakes lacking

twinkl

11+ Activity Mat 8

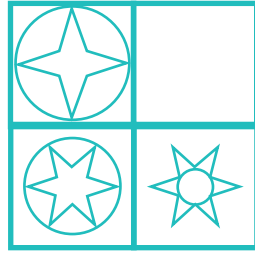
Verbal Reasoning

In each sentence below a four-letter word is hidden at the end of one word and the start of the next. Underline the hidden word.

- Look closely at the advert in the paper.
- The dog wolfed its food down hungrily.
- She had to tie the ribbon each time.
- Last night Grandpa gently dozed on the sofa.

Non-Verbal Reasoning

Look at this figure.

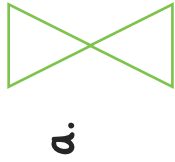


Which of these options will fill the empty square?

-
-
-
-
-

Non-Verbal Reasoning

Which figure is the odd one out?



b.



d.

e.



Maths

What is the value of a in this equation?

$$4a = 16 \quad / \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

What is the value of b in this equation?

$$4b + 2 = 14 \quad / \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

What is the value of c in this equation?

$$c2 = 64 \quad / \quad 5 \quad 6 \quad 7 \quad 8 \quad 9$$

Maths Which number is closest to 0?

0.182

0.5

15%

$$\frac{1}{4}$$

$$\frac{1}{8}$$

Verbal Reasoning

Choose the two words from each group that are the closest in meaning.

late, next, overdue,

detained, direct

find, stain, discover,

reflect, behind

obstacle, clutch, sincere,

shortcut, difficulty

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11+ Activity Mat 9

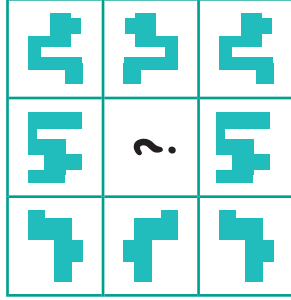
Verbal Reasoning

Place a letter in the box to complete the word in front of the box and begin the word after the box.

she ate
 sea ore
 fea oam

Non-Verbal Reasoning

Look at this figure.

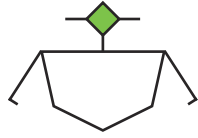


Choose which of these five options would fit into the missing square.



Non-Verbal Reasoning

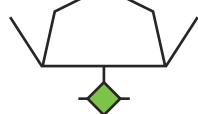
Which of these options is the reflection of the figure?



a.



b.



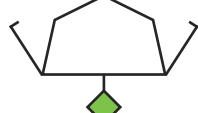
c.



d.



e.

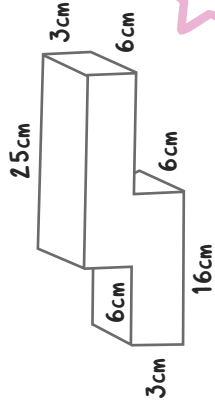


Maths

Jane works for a shoe shop and is given a discount card. Jane uses her card to buy a pair of trainers for £24.75. The trainers originally cost £27.50. What discount does she receive?

- a. 2% b. 5%
 c. 10% d. 20%
 e. 25%

Maths What is the volume of this compound cuboid?



Verbal Reasoning

Look carefully at the code and use the alphabet above to work out the answers.

A B C D E F G H I J K L M N
 O P Q R S T U V W X Y Z

- a. If FAME is HCOG, what is NWEM?
 b. If GOOD is EMMB, what is BSAT?
 c. If STOP is TUOQ, what is WJMF?

11+ Activity Mat 11

Verbal Reasoning

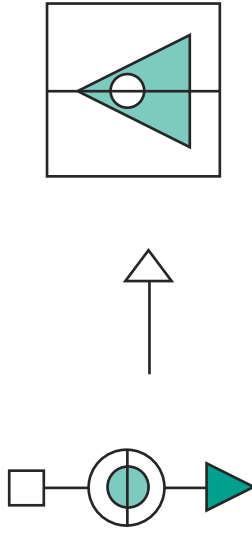
The alphabet is given to help you. Find the pair of letters that will continue the series in the most sensible way.

ABCDEFGHIJKLMN O P Q R
S T U V W X Y Z

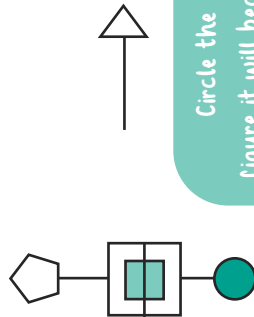
CG DH EI FJ --

Non-Verbal Reasoning

Look at how the first figure changes to become the second figure.



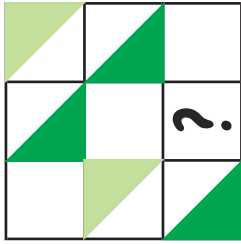
This figure will be changed in the same way.



Circle the figure it will become.

Non-Verbal Reasoning

Which square completes the grid? Circle the correct answer.



- a. b. c.

- d. e.

Maths

Round this number: 8578

- a. To the nearest 10
b. To the nearest 100
c. To the nearest 1000

Maths

What is $\frac{17}{2}$ as a decimal?

- a. 9.8
b. 8.5
c. 7.2

Verbal Reasoning

Find the number that continues the sequence in the most sensible way. Mark the missing number on the answer sheet.

3 7 11 15 --

11+ Activity Mat 12

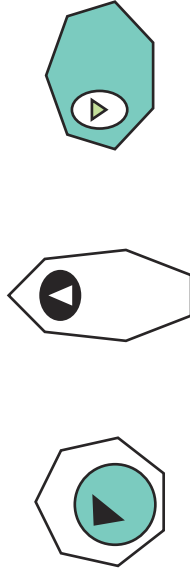
Verbal Reasoning

Choose two words, one from each set of brackets, that complete the sentence in the most sensible way. Underline both words.

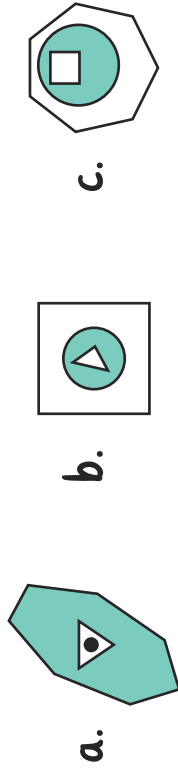
Zoologist is to (nature, health, animals) as astronomer is to (telescope, stars, clouds).

Non-Verbal Reasoning

These figures are alike in one or more ways.



Circle one of these figures which is most like the ones above:



Non-Verbal Reasoning

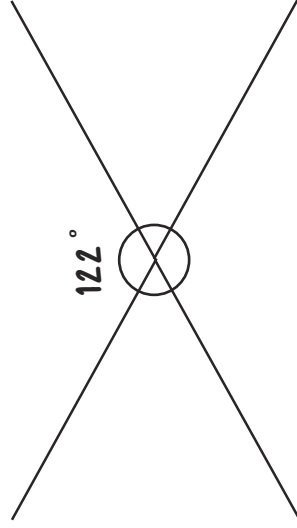
Here are five shapes. Four have a pair of code letters that describe them.



JR IQ JQ IS HR

Maths

Calculate the missing angles.



Work out what the code letters mean and then circle the code that is missing.

Maths

One cupcake requires 10g of sugar. Jesse buys a 2kg bag. How much sugar will he have left after making a batch of 12 cupcakes?

Verbal Reasoning

Circle one word from each group that together make one correctly spelt word. The letters must not be rearranged. The word from the first group will always be used first.

air be saw
ring port works

twinkl

11+ Activity Mat 13

Verbal Reasoning

The numbers in each group are related in the SAME way. Write in the missing number.

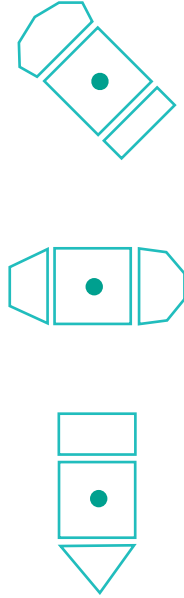
Example: (14 [20] 6)

(12 [26] 14)

(17 [_ _] 9)

Non-Verbal Reasoning

These figures are alike in one or more ways.

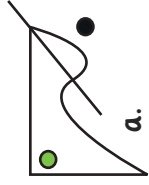


Draw a circle around the figure below which is most like them.

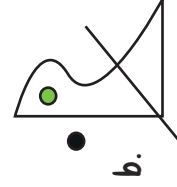


Non-Verbal Reasoning

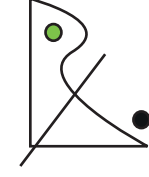
Draw a circle around the figure to show the odd one out.



a.



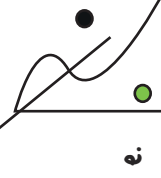
b.



c.



d.



e.

Maths

Which of these multiples of 3 add up to make a factor of 36?

- 3 and 12
- 6 and 21
- 3 and 15
- 6 and 27
- 9 and 12

Maths

The diameter of a paddling pool is 136.74cm. How wide is the pool to the nearest centimetre?

Verbal Reasoning

Find TWO words, one from each group, that are the most OPPOSITE in meaning. Underline one word in each group.

(wealthy sad shallow)
(bejewelled poor upset)

11+ Activity Mat 14

Verbal Reasoning

The alphabet is given to help you. Find the letters that will complete the sentence in the best way.

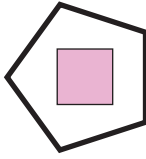
A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z

KK is to HN as FF is to ___.



Non-Verbal Reasoning

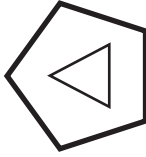
Here are five shapes. Four have a pair of code letters that describe them, but the last shape is missing these. Work out what the code letters mean and then write the missing code.



A R



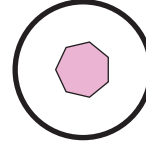
B S



A S



C T



??

Maths

Jenna has enough space on her phone to store 45 minutes of video. Each reel is between 2 and 3 minutes long. What is the minimum number of videos she will be able to store? Underline the correct answer.

22 12 25 15 9

Maths

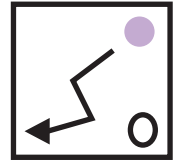
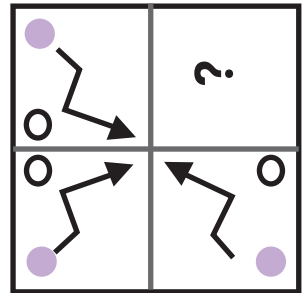
Draw arrows to show where the numbers belong on this number line. The first one has been done for you.

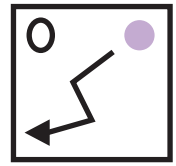
35, 62, 3, 95, 27

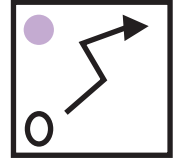


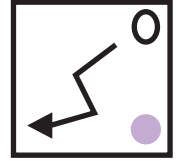
Non-Verbal Reasoning

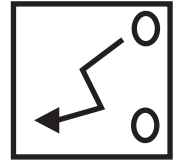
Which square completes the grid? Tick the correct answer.











Verbal Reasoning

Find the word that completes the third pair in the same way as the first two examples.

dream mare _____
punts stun _____
carer _____

11+ Activity Mat 15

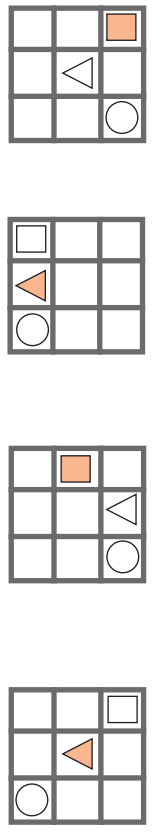
Verbal Reasoning

One letter from the word on the left can be moved to the word on the right to make TWO new words. The letters must not be rearranged.

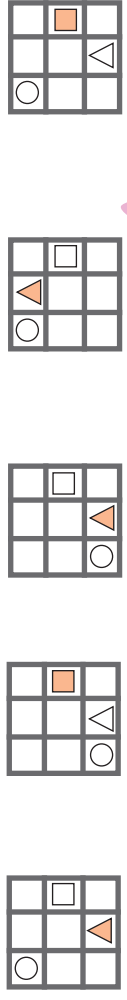
chant sad
crave fog

Non-Verbal Reasoning

A figure is missing from this sequence. Tick the figure that is missing.



??



Maths

Work out the answer to each calculation:

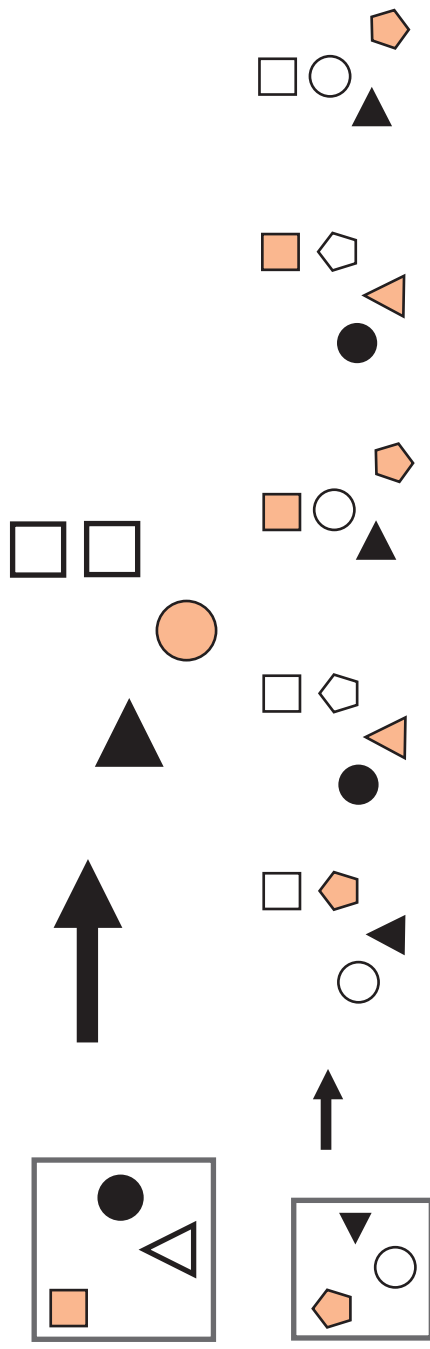
- a) 34×6
- b) 4×1.5
- c) 2.2×5

Maths
Work out the change you would get from a £5 note if you spend the following amounts:

- a) £2.45
- b) 78p
- c) £4.62

Non-Verbal Reasoning

Look at how the first figure changes to become the second figure. Circle the figure that the third figure will become if it is changed in the same way.



Verbal Reasoning

Write the number that will complete the sum correctly.

$24 + 9 = 16 + ?$

11+ Activity Mat 16

Verbal Reasoning

The number codes for three of these four words are listed in a random order. Work out the code to answer the question.

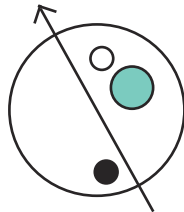
SLOW WEST SALE RENT

8214 1368 1932

What is the code for LAST?

Non-Verbal Reasoning

Which of the five options is the reflection of the first figure?



Use the mirror line provided.



b.



c.



d.



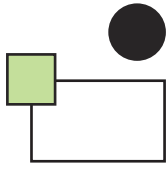
e.



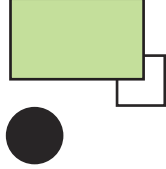
Non-Verbal Reasoning

Which figure is the odd one out? Tick the correct box.

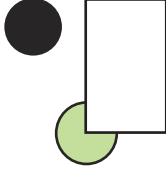
a.



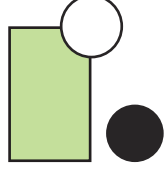
b.



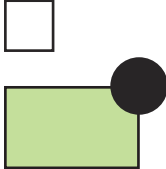
c.



d.



e.



Maths

Every row, column and diagonal in this grid adds up to 6. Can you fill in the blanks?

0.8		
2.8		0.4

Maths

Use all five of these numbers to complete the calculation beneath:

1 4 5 7 9

$$\square \square \square - \square \square = 654$$

Verbal Reasoning

Mark two words (one from each set of brackets) that have the most similar meaning.

(excited nervous happy)

(laughing clapping pleased)

11+ Activity Mat 17

Verbal Reasoning

Look at this code:

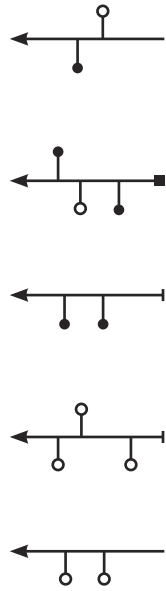
A = 3. B = 7. C = 10. D = 11. E = 14.

Work out the letter that represents the numerical answer to this calculation:

$$A \times B - C = _ _$$

Non-Verbal Reasoning

Here are five shapes. Four have a pair of code letters that describe them, but the last shape has the code missing.



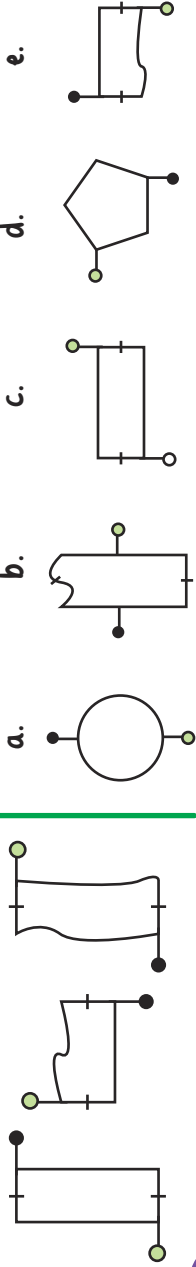
L T M T M U N V ? ?

Work out what the code letters mean and then circle the code that is missing.

- a. L U b. N T c. M V d. N U e. L V

Non-Verbal Reasoning

Here are three figures which are alike in one or more ways.



Maths

The disco started at the time shown on the clock. It finished when Hayley's digital watch showed 21:45. How long was the disco?

7:30pm

Hours: --- Minutes: ---

Maths

Which of these numbers is sixteen thousand and twenty six?

- a. 1 600 026
b. 16 260
c. 16 026
d. 1626

Verbal Reasoning

Three of the words in this list are linked. Underline the two words that are not related to these three.

terrier boxer bengal
manx poodle

11+ Activity Mat 18

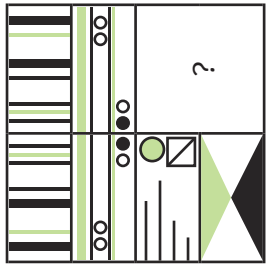
Maths

The temperature in Serena's garden is -2°C .

The temperature in her kitchen is 19°C .

What is the difference between the two temperatures?

Which square completes the grid? Circle the correct answer.



a.



b.



c.



d.



e.



Non-Verbal Reasoning

Look at how the first figure changes to become the second figure.



Circle the figure that this figure will become if it is changed in the same way.



a.



b.



c.



d.

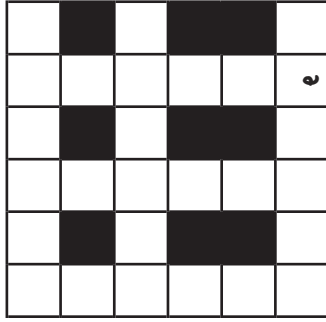


e.

Verbal Reasoning

Use the words to complete the word grid. You must use all the words.

candle, happen, hijack, jetsam, number, patent



Maths

Deon watches a film that was released in MCMXCIX.

Deon was born in 2013.

How many years older than Deon is the film?

Verbal Reasoning

Underline the word that is similar in meaning to the words in both sets of brackets.

(point, position)

(objective, intention)

motive train goal aim

twinkl

11+ Activity Mat 19

Verbal Reasoning

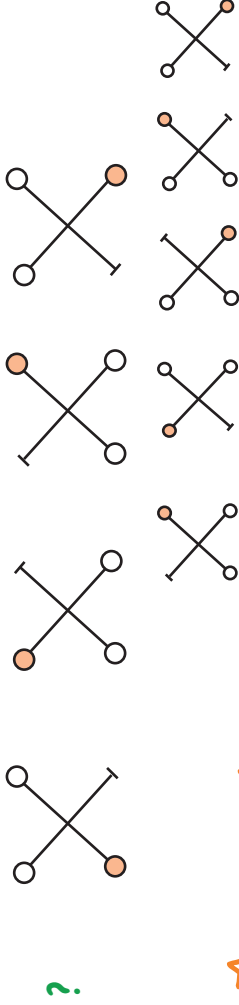
Find the three-letter word that completes the word in capital letters to finish the sentence.

The spy hoped that nobody would **RENISE** them.



Non-Verbal Reasoning

A figure is missing from this sequence.
Circle the figure that is missing.



Maths

The ice-skating rink measures 23m by 45m.
What is the area of the rink?

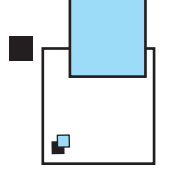
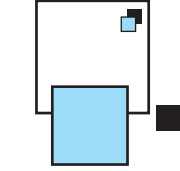
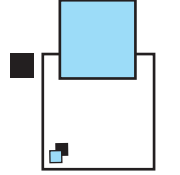
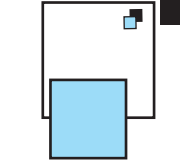
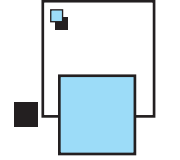
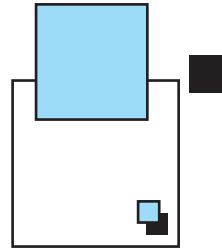
Maths

Ariana has one hundred and six trading cards. She gives away 28. How many does she have left?

Non-Verbal Reasoning

Which of the five options is the reflection of this figure?

Use the mirror line provided.



Verbal Reasoning

Underline one word from each bracket to complete the sentence.

Thrifty is to (frugal shrewd cautious) as extravagant is to (covetous valuable excessive).



twinkl

11+ Activity Mat 20

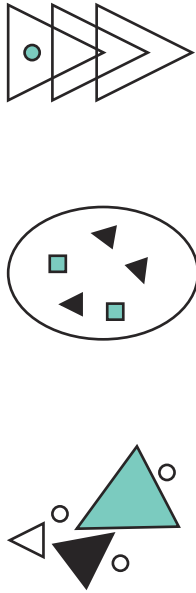
Verbal Reasoning

Which letter will finish the word before the brackets and begin the word after the brackets? Choose the correct letter for each one - there are two to try.

mak (?) ase
pic (?) ite

Non-Verbal Reasoning

Here are three figures which are alike in one or more ways.

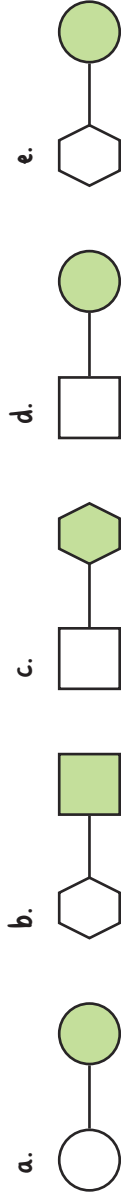


Choose which of these five options is most like the other figures.



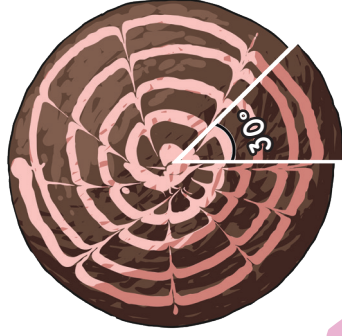
Non-Verbal Reasoning

Which figure is the odd one out? Circle the correct answer.



Maths

Jenny has cut a slice of cake which is 30° at the point. All the other slices will be the same size. How many slices are there in the whole cake?



Maths

Which one of these numbers has the lowest value?

4.43 43 4.23 4.19 4.3

Verbal Reasoning

Three words are related. Can you find the two words that do NOT relate to the other three? Underline them BOTH.

single twin couple
triplet pair

twinkl

11+ Activity Mat 21

Verbal Reasoning

ABCDEFGHIJKLMNOPQRSTUVWXYZ

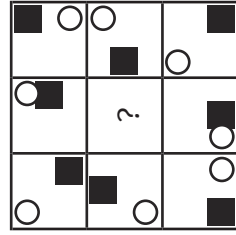
The alphabet is there to help you.

See if you can work out this code:

If SAND is HZMW, what is QLPVI the code for?

Non-Verbal Reasoning

Which square completes the grid? Circle the correct answer.



b.



c.



d.

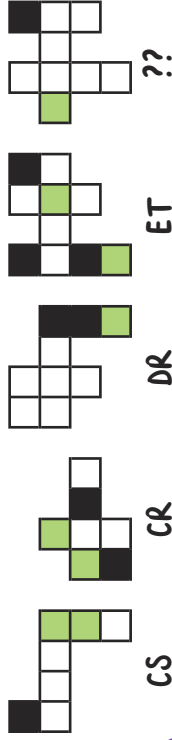


e.



Non-Verbal Reasoning

Here are five shapes. Four have a pair of code letters that describe them but the last shape is missing these.



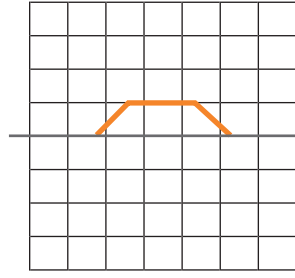
- a. DT ES ER DS CT
- b. ES ER DS CT
- c. ER DS CT
- d. DS CT
- e. CT

See if you can work out this code:

If SAND is HZMW, what is QLPVI the code for?

Maths

When the lines on this grid are reflected in the mirror line, what shape is made?



- a. quadrilateral
- b. hexagon
- c. pentagon
- d. triangle

Maths

A recipe book is forty pages long. The dessert section takes up two-fifths of the book. How many pages are there in this section?

Work out what the code letters mean and then circle the code that is missing.

Verbal Reasoning

Find two words (one from each group) that have the closest meaning.

Underline both.

(deserve worth reward)

(payment price value)

11+ Activity Mat 22

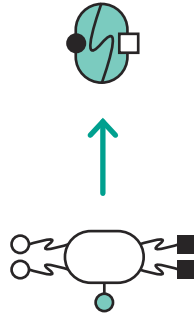
Verbal Reasoning

In this sentence, a **FOUR**-letter word is hidden between two words. Underline the hidden word.

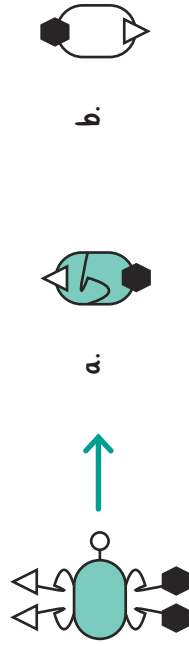
The old dragon emerged from the dark cave.

Non-Verbal Reasoning

Look at how the first figure changes to become the second figure.

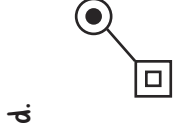
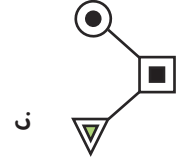


Circle the figure that this figure will become if it is changed in the same way.



Non-Verbal Reasoning

Which figure is the odd one out? Circle the correct answer.



Maths

The table shows the number of books read by classes during the half term holiday.

No. of books	30	35	40	45	50
No. of classes	5	3	3	2	1

What percentage of classes read more than 35 books?

2

Maths

All the edges of a cube total 72cm. What is the area of one face of the cube?

Answer: _____ cm^2

Verbal Reasoning

If $A = 18$, $B = 16$, $C = 19$, $D = 20$ and $E = 17$, what is the answer to the sum written as a letter?

$$C + E - B =$$

11+ Activity Mat 23

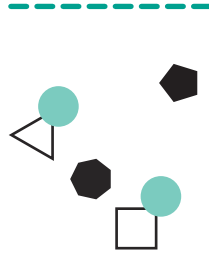
Verbal Reasoning

One letter from the word on the left can be moved to the word on the right, to make TWO new words. The letters must not be rearranged.

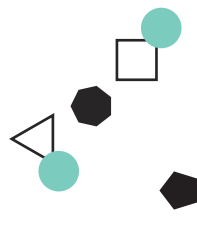
- a) chant sad _____
 b) learn pay _____

Non-Verbal Reasoning

Which of the five options is the reflection of this figure?



Use the mirror line provided.

- a.  a. 
 b. 
 c. 
 d. 
 e. 

Non-Verbal Reasoning

A figure is missing from this sequence. Tick the figure that is missing.



- a. 
 b. 
 c. 
 d. 
 e. 

Verbal Reasoning

The word in capitals has had THREE consecutive letters removed, without changing the order of these letters they will make one correctly spelt word. The sentence must make sense. Find the three-letter word and mark it on the answer sheet.

He WED the car every Saturday.

Maths

Which of these pairs are equivalent fractions?

- a. $\frac{2}{5}$ $\frac{5}{8}$ b. $\frac{2}{6}$ $\frac{6}{18}$
 c. $\frac{3}{15}$ $\frac{5}{20}$ d. $\frac{4}{12}$ $\frac{3}{12}$

Maths

A pack of candles has 3 pink candles and 4 blue candles. Jack wants to decorate the cake with alternate colours until he reaches 20 candles. If he starts with a pink candle, how many packs will he need to buy?

11+ Activity Mat 1 Answers

Verbal Reasoning

Place a letter in the box. This should complete the word in front of the box and begin the word after the box.

F A C **E** D I T

T U R **N** E X T

L A M **B** I R D

Adding **E** creates the words **FACE** and **EDIT**.

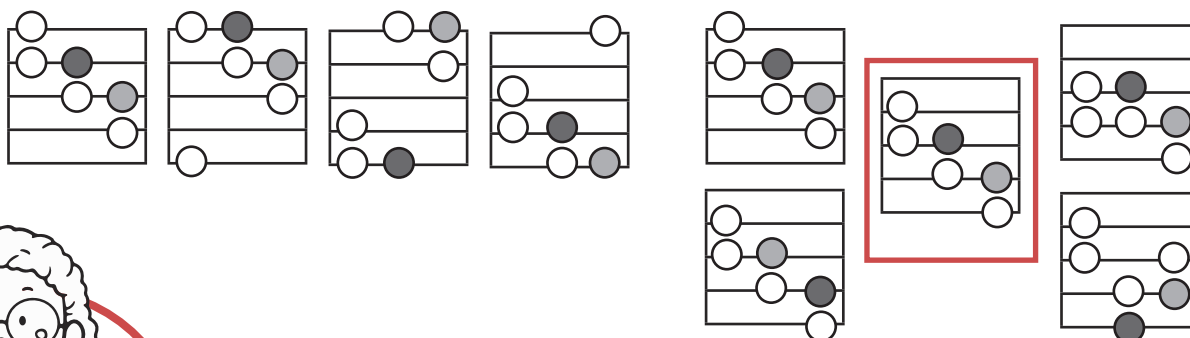
Adding **N** creates the words **TURN** and **NEXT**.

Adding **B** creates the words **LAMB** and **BIRD**.



Non-Verbal Reasoning

Look at this sequence. Choose which square would come next in the sequence.



Each square shows the circles moving up one line. Once the circles have reached the top line, they move to the bottom.

Maths

Year 5 and year 6 are split into red, yellow and blue teams. The number of points won by each team are shown in the table. How many points did the blue team win in total?

Team	Year 5	Year 6	Total
Red	41	34	75
Yellow	28	28	56
Blue	26	40	66
Total	95	102	197

Find year 5 blue team's score by solving $41 + 28 = 69$ and then solve $95 - 69$ to find the missing value for blue team, which is 26.

Then, find blue team's total by adding their year 5 score to their year 6 score.

$$26 + 40 = 66$$

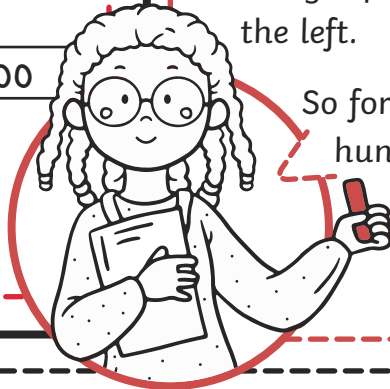


11+ Activity Mat 1 Answers

Maths

Multiply each of these numbers by 100.

Number	Multiplied by 100
0.241	24.1
20.4	2040
4.01	401



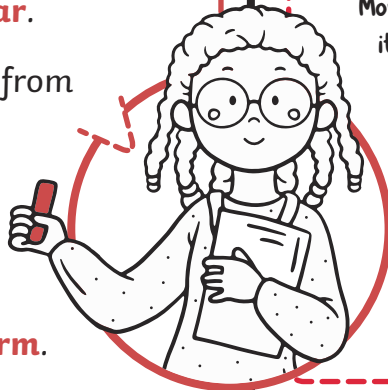
Multiplying a number by 100 means moving it along a place value chart two spaces to the left.

So for 0.241, the zero ones becomes zero hundreds, the two tenths become two tens, the four hundredths become four ones and the one thousandth becomes one tenth.

Moving the letter **r** from **later** creates **late** and **rear**.

Moving the letter **c** from **patch** creates **path** and **call**.

Moving the letter **m** from **lamps** creates **laps** and **form**.



Verbal Reasoning

Move a letter from the first five-letter word and add it to the second three-letter word to make two new four-letter words. The order of the letters cannot be changed.

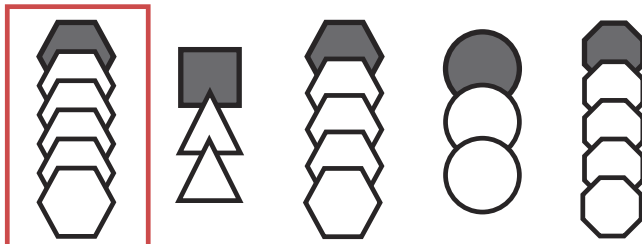
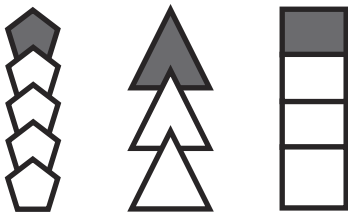
later ear **late** **rear**

patch all **path** **call**

lamps for **laps** **form**

Non-Verbal Reasoning

Look at these three figures. They are alike in one or more ways. Choose which of these five options is most like the three figures.



Each figure not only has a shaded shape at the top, but is also composed of the same number of shapes as the amount of sides on each shape. The first figure is correct as it is a set of six hexagons and hexagons have six sides.



11+ Activity Mat 2 Answers

Verbal Reasoning

Underline two words, one from each group, that will complete the sentence in the best way.

far, near, sky, distant, mountain

chatty, caring, skilful, kind, gentle

cup, plate, bowl, tea, mug

Far and **distant** both mean that something is a long distance away.

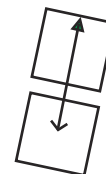
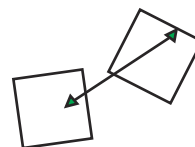
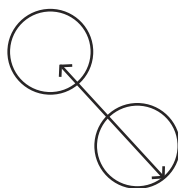
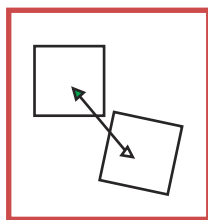
Caring and **kind** both mean that someone is compassionate.

Cup and **mug** are both similarly shaped containers for drinking from.



Non-Verbal Reasoning

Which figure is the odd one out?



The second figure is the odd one out as the other figures all include an arrow that reaches all the way to the edge of one of the shapes.

Maths

Round the following numbers to the nearest thousand.

Number	Rounded to the nearest 1000
3 490 785	3 491 000
5 949 951	5 950 000
2 762 415	2 762 000

3 490 785: We need to look at the hundreds, which is 7 hundreds, so we round it up to 1 thousand, making 3 491 000.

5 949 951: We have 9 hundreds so we need to round up. We are already at 9 thousands so we need to go to the next thousands number which is 10 000, making 5 950 000.

2 762 415: We have 4 hundreds so we need to round down to 2 thousands, making it 2 762 000.



11+ Activity Mat 2 Answers

Maths

For every 4 eggs, Kira needs 140g of flour. If Kira uses 10 eggs, how much flour is needed?

350g flour

Multiple methods, including:

140g divided by 4 to find how much flour is needed for 1 egg, then multiplying that by 10 to find how much is needed for 10 eggs.

$$140\text{g} \div 4 = 35\text{g}$$

$$35\text{g} \times 10 = 350\text{g}$$

or

$$4 \text{ eggs} = 140\text{g}$$

$$8 \text{ eggs} = 280\text{g}$$

2 eggs left to find:

$$2 \text{ eggs} = 140\text{g} \div 2 = 70\text{g}$$

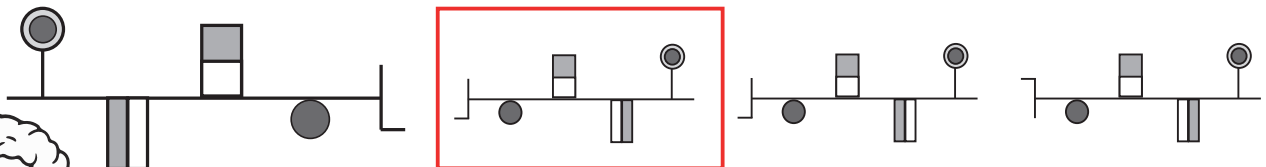
$$8 \text{ eggs} + 2 \text{ eggs} = 10 \text{ eggs}$$

$$280\text{g} + 70\text{g} = 350\text{g}$$



Non-Verbal Reasoning

Look at the figure. Which of these options is a reflection of this figure?



The figure has been reflected on a mirror line on the right hand side. This means that everything needs to be reversed. On the 2nd option, the green and white rectangles have not been reversed. On the 3rd option, the L shape should not be upside down.

11+ Activity Mat 2 Answers

Verbal Reasoning

Underline two words, one from each group, that will complete the sentence in the best way.

Car is to road/fast/wheels as train is to long/track/station.

Turret is to flag/castle/knight as chimney is to soot/smoke/house

Sugar is to sticky/sweet/dessert as lemon is to fruit/sour/pancakes.

Road and **track** both refer to what the vehicle travels on.

Castle and **house** both refer to the type of building the feature is found on.

Sweet and **sour** both refer to the flavour of the food.



11+ Activity Mat 3 Answers

Worth and **value** both refer to the importance or usefulness of something, or what it is rated as.

Honest and **genuine** both mean truthful.

Pleased and **glad** both refer to being happy about something.



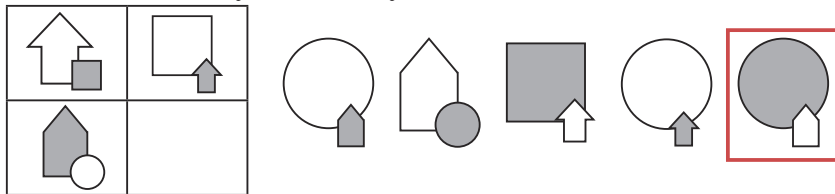
Verbal Reasoning

Mark two words, one from each set of brackets, that have the most similar meaning.

(money, **worth**, cost) (**value**, collect, treasure)
(clever, clean, **honest**) (kind, noble, **genuine**)
(comfortable, relaxed, **pleased**) (interested, **glad**, fortunate)

Non-Verbal Reasoning

Look at this grid. Which figure should replace the empty square?



The figure in the empty square is an adaptation of the figure in the bottom left corner of the grid. The shapes have swapped positions and colours, from large dark pentagon and small light circle to small light pentagon and large dark circle.

Verbal Reasoning

In each of the following sentences, see if you can find a four-letter word hidden between two words. The two words will always be next to each other.

The energetic **hare** **stopped** and waited in the grass. **rest**

The towering tree cast a deep **shadow** nearby. **down**

The wise **dragon** emerged from the cramped cave. **gone**



The word **rest** is made up of the last 2 letters of **hare** and the first 2 letters of **stopped**.

The word **down** is made up of the last 3 letters of **shadow** and the first letter of **nearby**.

The word **gone** is made up of the last 3 letters of **dragon** and the first letter of **emerged**.

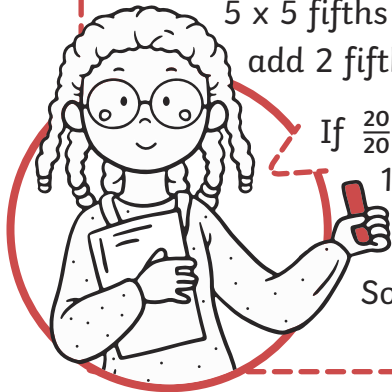
11+ Activity Mat 3 Answers

There are 3 thirds in 1 whole one.
15 is the same as 15 whole ones. So
15 is made up of 15 lots of 3 thirds:
 $15 \times 3 = 45$.

Each whole one is made up of 5 fifths.
 5×5 fifths = 25 fifths. 25 fifths
add 2 fifths = 27 fifths = $\frac{27}{5}$.

If $\frac{20}{20} = 100\%$, then $\frac{1}{20} =$
 $100\% \div 20 = 5\%$.

So $\frac{11}{20} = 5\% \times 11 = 55\%$.



Maths

Mark two words, one from each set of brackets,
that have the most similar meaning.

How many thirds are there in the number 15?

5 10 30 **45** 60

Which of these improper fractions is the
same as $5\frac{2}{5}$?

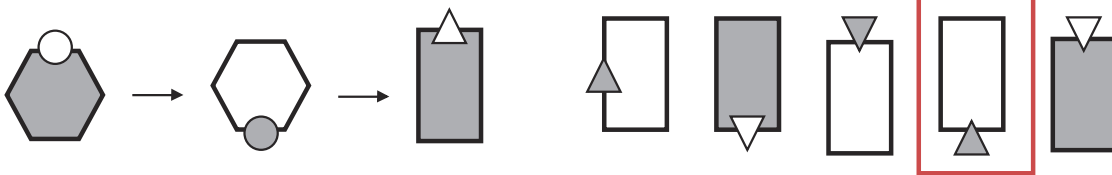
$\frac{27}{5}$ $\frac{7}{5}$ $\frac{10}{5}$ $\frac{10}{25}$ $\frac{30}{5}$

Which percentage is the same as $\frac{11}{20}$?

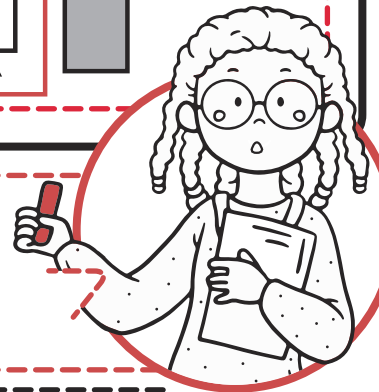
11% 20% 40% **55%** 65%

Non-Verbal Reasoning

Look at how the first shape changes to become the second shape. Work out which option would look like the third shape if you changed it in the same way.



The larger shape changed from dark to light, while the smaller shape has changed from light to dark. The smaller shape has also moved from the top of the larger shape to the bottom.



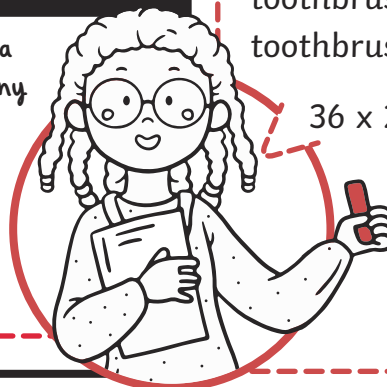
Maths

There are 36 toothbrushes in a box. In one day, a
toothbrush manufacturer fills 2594 boxes. How many
toothbrushes is this altogether?

93 384 toothbrushes

toothbrushes \times boxes = total
toothbrushes

$$36 \times 2594 = 93\,384$$



11+ Activity Mat 4 Answers

Under and **over** are opposite prepositions.

Attack and **defend** are opposite actions.

Day and **night** are opposite times.



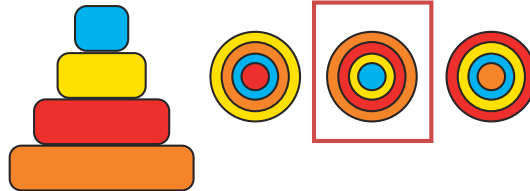
Verbal Reasoning

Choose two words, one from each group, that are the most opposite in meaning.

(**under**, low, floor) (wall, beside, **over**)
(play, **attack**, weapon) (run, cooperate, **defend**)
(sky, light, **day**) (**night**, empty, moon)

Non-Verbal Reasoning

Look at this stack of objects. Work out which of these is the view from above.



The largest shape is orange, followed by red, yellow and blue.



Verbal Reasoning

Which of these pairs are equivalent fractions?

If $A = 17$, $B = 19$, $C = 26$, $D = 31$ and $E = 12$, what is the answer to the sum written as a letter?

$$D - A + E = \boxed{C}$$

If $A = 18$, $B = 16$, $C = 19$, $D = 20$ and $E = 17$, what is the answer to the sum written as a letter?

$$C + E - B = \boxed{D}$$

If $A = 6$, $B = 10$, $C = 9$, $D = 7$ and $E = 11$, what is the answer to the sum written as a letter?

$$E + A - D = \boxed{B}$$

$$D - A + E = ?$$

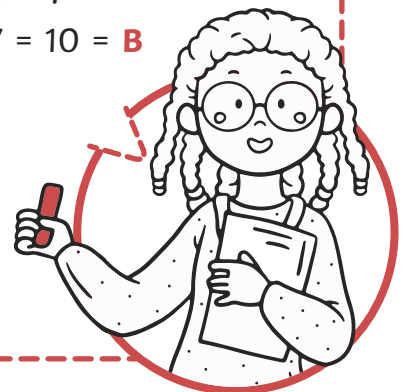
$$31 - 17 + 12 = 26 = \boxed{C}$$

$$C + E - B = ?$$

$$19 + 17 - 16 = 20 = \boxed{D}$$

$$E + A - D = ?$$

$$11 + 6 - 7 = 10 = \boxed{B}$$



11+ Activity Mat 4 Answers

Maths

3 chocolate bars : £1.60

9 chocolate bars : ?

$$3 \times 3 = 9$$

$$£1.60 \times 3 = \mathbf{£4.80}$$

2 pizzas : £19.00

5 pizzas : ?

$$1 \text{ pizza} = 2 \text{ pizzas} \div 2 = £19.00 \div 2 = £9.50$$

$$5 \times £9.50 = \mathbf{£47.50}$$

3 bags : £1.35

10 bags: ?

$$9 \text{ bags} = 3 \text{ bags} \times 3 = £1.35 \times 3 = £4.05$$

$$1 \text{ bag} = 3 \text{ bags} \div 3 = £1.35 \div 3 = £0.45$$

$$9 \text{ bags} + 1 \text{ bag} = £4.05 +$$

$$£0.45 = \mathbf{£4.50}$$

Three chocolate bars cost £1.60. What is the cost of nine chocolate bars?

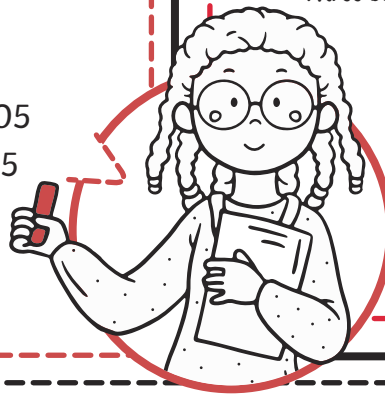
£3.60 **£4.80** £7.20 £9.60 £14.40

Two pizzas cost £19.00. What is the cost of five pizzas?

£38.00 £45.00 **£47.50**
£49.00 £57.00

Three bags of rice cost £1.35. What is the cost of ten bags?

£4.70 £10.35 **£4.50**
£6.30 £13.50



Non-Verbal Reasoning

These shapes have code letters that describe them. You need to work out what the code letters mean. Now, work out which code describes this shape.



GL



JP



KX



HL



KL **JX** KP JL HP

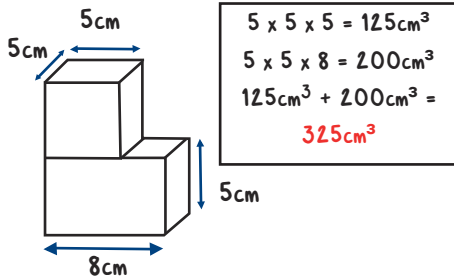
The only letters that any of the shapes have in common is the L in GL and HL. The common link between GL and HL is the bracket shape, so the second letter of the codes represents the bracket shape. The bracket shape in the shape we are looking for is the same as the bracket shape in KX, which means its second letter is X. The only code option with X is JX.



11+ Activity Mat 4 Answers

Maths

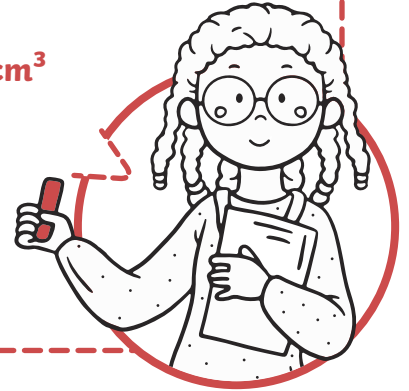
This picture shows a cube on top of a cuboid. What is the total volume of the shapes?



The volume of the cube is $5 \times 5 \times 5 = 125\text{cm}^3$.

The volume of the cuboid is $5 \times 5 \times 8 = 200\text{cm}^3$.

$$125\text{cm}^3 + 200\text{cm}^3 = 325\text{cm}^3$$



11+ Activity Mat 5 Answers

Sea and **son** can be put together to make **season**.

Hand and **stand** can be put together to make **handstand**.

Up and **beat** can be put together to make **upbeat**.



Verbal Reasoning

Choose two words (one from each group) that, when put together, will make a new correctly spelt word. The word from the first group will always come first in the answer.

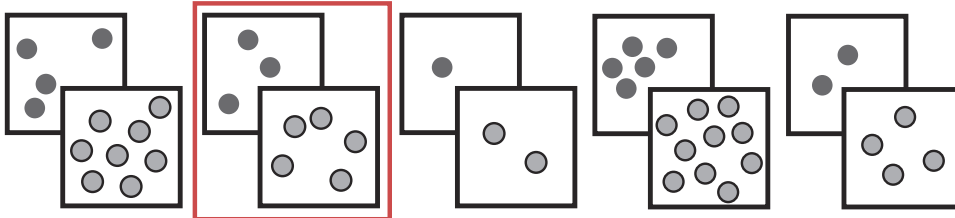
(**sea**, wave, surf) (mother, father, **son**)

(**hand**, elbow, arm) (sit, run, **stand**)

(**up**, tall, under) (rock, **beat**, sound)

Non-Verbal Reasoning

Which of these figures is the odd one out?



The second one is the odd one out because on the rest of the figures, the bottom square has double the number of dots contained within the top square.



Maths

Ali thinks of a number. He multiplies it by 7, adds 8 and then divides it by 2. He ends up with 67. What was the number he started with?

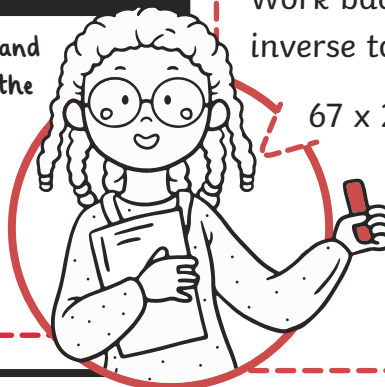
18

Work backwards using the inverse to solve the problem.

$$67 \times 2 = 134$$

$$134 - 8 = 126$$

$$126 \div 7 = \mathbf{18}$$



11+ Activity Mat 5 Answers

$$6a = 18$$

$$6 \times a = 18$$

$$18 \div 6 = a$$

$$a = 3$$

$$4b + 2 = 22$$

$$(4 \times b) + 2 = 22$$

$$22 - 2 = 20$$

$$4 \times b = 20$$

$$20 \div 4 = 5$$

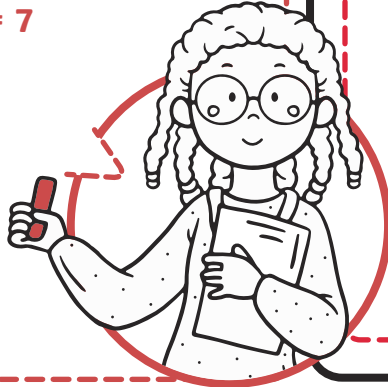
$$b = 5$$

$$c^2 = 49$$

$$c \times c = 49$$

$$7 \times 7 = 49$$

$$c = 7$$



Maths

What is the value of a in this equation?

$$6a = 18 \quad / \quad 2 \quad \boxed{3} \quad 4 \quad 5 \quad 6$$

What is the value of b in this equation?

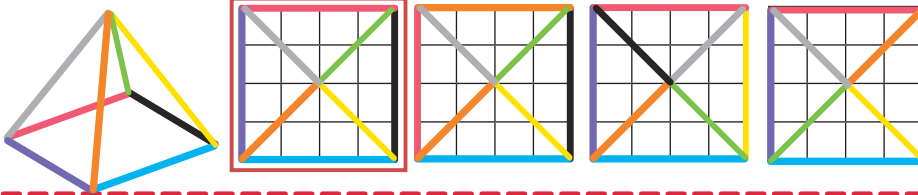
$$4b + 2 = 22 \quad / \quad 2 \quad 3 \quad 4 \quad \boxed{5} \quad 6$$

What is the value of c in this equation?

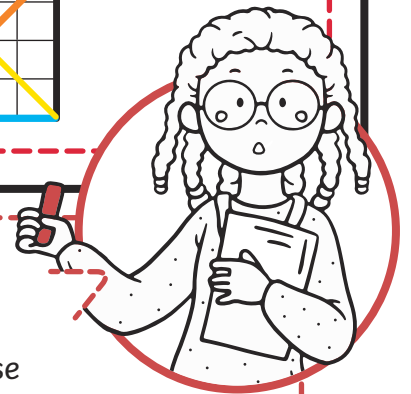
$$c^2 = 49 \quad / \quad 5 \quad 6 \quad \boxed{7} \quad 8 \quad 9$$

Non-Verbal Reasoning

Look at this 3D figure. Work out which option is a top-down 2D view of the 3D figure.



When looking at this figure from above, the square base would be pink - black - blue - purple and the central parts would be grey - green - yellow - orange. The only 2D view that shows both of these sequences is the first one.



11+ Activity Mat 5 Answers

Verbal Reasoning

Use the alphabet to help you work out the answer to each question. You will need to work out a different code for each question.

If the code for CAT is DBU, what is EPH the code for? **DOG**

If the code for STORY is RSNQX, what is the code for MAGIC? **LZFH**

If the code for DOOM is FMQK, what does MGPE mean? **KING**

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z

CAT = DBU so EPH = ?

DBU is one letter to the right of CAT.
One letter to the right of EPH = **DOG**.

STORY = RSNQH so ? = MAGIC

RSNQH is one letter to the left of STORY.
One letter to the left of MAGIC = **LZFH**

DOOM = FMQH so MGPE = ?

The code for this one goes 2 letters to the left, 2 letters to the right and repeat.

2 letters to the left of M = K

2 letters to the right of G = I

2 letters to the left of P = N

2 letters to the right of E = G

MGPE = **KING**



11+ Activity Mat 6 Answers

Paint and **brush** do not belong as the rest of the words are colours.

Frog and **turtle** do not belong as the rest of the words are invertebrates.

Dawdle and **saunter** do not belong as they mean to move slowly and the other words mean to move fast.



Verbal Reasoning

In each group of words, three of them go together. Which two words do not belong with the other three?

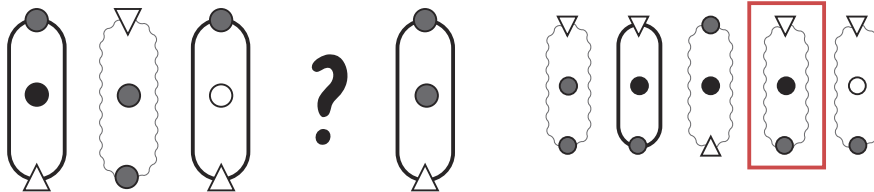
yellow, blue, **paint**, red, **brush**

earthworm, **frog**, centipede, **turtle**, spider

dawdle, **saunter**, hurry, sprint, dash

Non-Verbal Reasoning

Which of these figures should fill the empty space?



The fourth one is correct as the pattern on top follows circle - triangle - circle - triangle - circle and the opposite on the bottom. The outline follows the pattern of straight - wiggly - straight - wiggly - straight. Following these rules, it can only be option 1, 4 or 5. The answer is option 4 because the centre circle pattern is dark circle - light circle - empty circle, meaning that the missing one must have a dark circle in the centre.

Maths

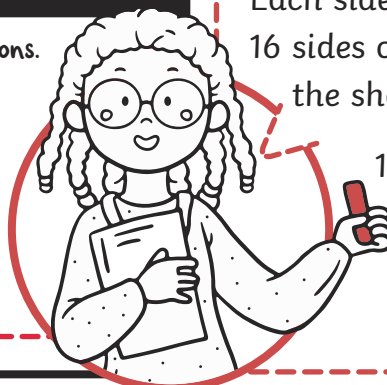
This honeycomb pattern is made up of regular hexagons. The length of each side of the hexagons is 2cm. Calculate the distance around the outer edge of this shape.



32cm

Each side is 2cm. There are 16 sides on the outer edge of the shape.

$$16 \times 2\text{cm} = 32\text{cm}$$



11+ Activity Mat 6 Answers

Non-Verbal Reasoning

Look at these three figures. Find which of these five figures is most like the three figures.



The fourth figure is most like the other ones as it has 2 straight sides and 2 curved sides.



Verbal Reasoning

Choose two words that must change places so that the sentence makes sense.

Have **your** cleaned **you** room today?

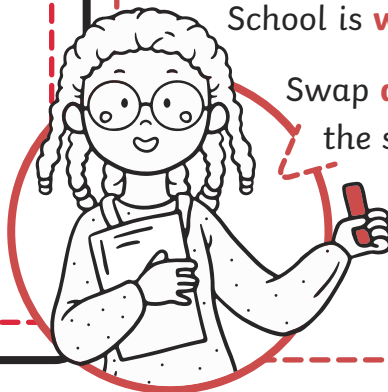
School is **wear** we **where** our uniforms.

Are favourite colours **our** pink and green.

Swap **your** and **you** to make the sentence:
Have **you** cleaned **your** room today?

Swap **wear** and **where** to make the sentence:
School is **where** we **wear** our uniforms.

Swap **are** and **our** to make the sentence:
Our favourite colours **are** pink and green.



11+ Activity Mat 6 Answers

Maths

What is 100×32.05 ?

3.205 320.5 3020.5 **3205** 32 050

What is 1000×4.091 ?

4910 **4091** 409.1 40 910 41901

What is $562 \div 1000$?

56.2 **0.562** 5.602 5.62 5.062

$100 \times 32.05 = 3205$ because to multiply by 100 you shift the numbers to the left across two columns of a place value grid, meaning 3 tens becomes 3 thousands and so on.

$1000 \times 4.091 = 4091$ because to multiply by 1000 you shift the numbers to the left across three columns of a place value grid, meaning 4 ones becomes 4 thousands and so on.

$562 \div 1000 = 0.562$ because to divide by 1000 you shift the numbers to the right across three columns of a place value grid (the opposite way to multiplying), meaning that 5 hundreds becomes 5 tenths and so on.



11+ Activity Mat 7 Answers

Verbal Reasoning

Place a letter in the box. This should complete the word in front of the box and begin the word after the box.

FACT**A**BLE

FORU**M**ANOR

FIRE**V**ER

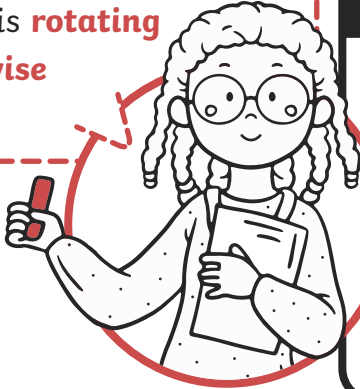
Adding **T** makes the words **FACT** and **TABLE**.

Adding **M** makes the words **FORUM** and **MANOR**.

Adding **E** makes the words **FIRE** and **EVER**.

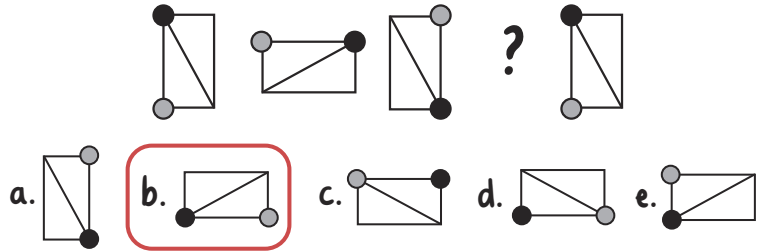


The shape is **rotating 90° clockwise** each time.



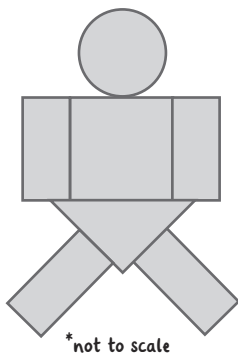
Non-Verbal Reasoning

Look at this sequence. Can you select the missing shape?



Maths

Jesse has used some paper shapes to make this robot picture. The squares have sides of 6cm and the circles have an area of 10cm^2 . He has cut some shapes in half. What is the area of the robot? 136cm^2



$$1 \text{ circle} = 10\text{cm}^2$$

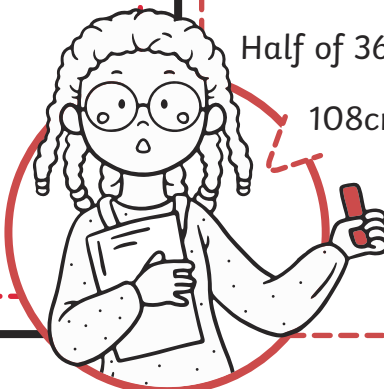
$$1 \text{ square} = 6\text{cm} \times 6\text{cm} = 36\text{cm}^2.$$

There is 1 full circle, 1 full square, 2 squares that have been cut in half and half a square on its own.

$$36\text{cm}^2 \times 3 = 108\text{cm}^2$$

$$\text{Half of } 36\text{cm}^2 = 18\text{cm}^2$$

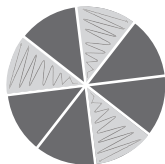
$$108\text{cm}^2 + 18\text{cm}^2 + 10\text{cm}^2 = \mathbf{136\text{cm}^2}.$$



11+ Activity Mat 7 Answers

Maths

The circle has been divided into equal parts.
What fraction of the shape has been drawn on?



- a. $\frac{1}{3}$ b. $\frac{5}{18}$ c. $\frac{5}{8}$
d. $\frac{6}{9}$ e. $\frac{3}{8}$

The circle has been divided into **8 equal parts** and **3 parts** have been drawn on.

As a fraction, this is $\frac{3}{8}$.



Moving the **e** from **peace** makes **pace** and **bite**.

Moving the **e** from **becon** makes **bacon** and **event**.

Moving the **s** from **snakes** makes **snake** and **slacking**.



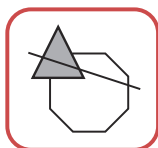
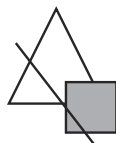
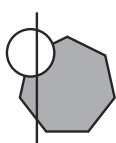
Verbal Reasoning

Move a letter from the first five-letter word and add it to the second three-letter word to make two new four-letter words. The order of the letters cannot be changed.

peace bit **pace** **bite**
beacon vent **bacon** **event**
snakes lacking **snake** **slacking**

Non-Verbal Reasoning

Look at these three figures. They are alike in one or more ways.
Choose which of these five options is most like the three figures.



Option 3 is the only one it could be as the lines on the other shapes don't go through both shapes.

11+ Activity Mat 8 Answers

Verbal Reasoning

In each sentence below a four-letter word is hidden at the end of one word and the start of the next. Underline the hidden word.

- Look closely at the advert in the paper. **head**
- The dog wolfed its food down hungrily. **edit**
- She had to tie the ribbon each time. **bone**
- Last night Grandpa gently dozed on the sofa. **page**



- The last 2 letters in **the** and the first 2 letters in **advert** make **head**.
- The last 2 letters in **wolfed** and the first 2 letters in **its** makes **edit**.
- The last 3 letters in **ribbon** and the first letter in **each** makes **bone**.
- The last 2 letters in **grandpa** and the first 2 letters in **gently** make **page**.

Maths

What is the value of a in this equation?

What is the value of a in this equation?

$$4a = 16 \quad / \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

What is the value of b in this equation?

$$4b + 2 = 14 \quad / \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

What is the value of c in this equation?

$$c^2 = 64 \quad / \quad 5 \quad 6 \quad 7 \quad 8 \quad 9$$

$$4a = 16$$

$$4 \times a = 16$$

$$16 \div 4 = 4$$

$$\mathbf{a = 4}$$

$$4b + 2 = 14$$

$$14 - 2 = 12$$

$$4b = 12$$

$$4 \times b = 12$$

$$12 \div 4 = 3$$

$$\mathbf{b = 3}$$

$$c^2 = 64$$

$$c \times c = 64$$

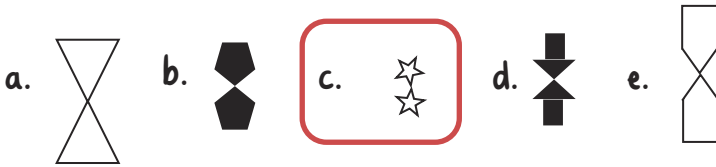
$$\mathbf{c = 8}$$



11+ Activity Mat 8 Answers

Non-Verbal Reasoning

Which figure is the odd one out?



The answer is **c** as the other figures have **two lines of symmetry**.



As decimals, the numbers are:

0.182

0.5

15% = 0.15

$\frac{1}{4} = 0.25$

$\frac{1}{8} = 0.125$



Maths

Which number is closest to 0.

0.182

0.5

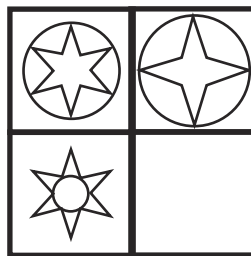
15%

$\frac{1}{4}$

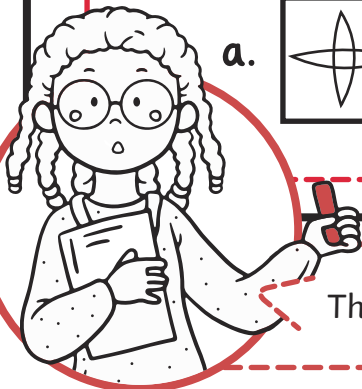
$\frac{1}{8}$

Non-Verbal Reasoning

Look at the figure. Which of these options will fill the empty square?



The circle is outside the top shape and inside the bottom shape.



11+ Activity Mat 8 Answers

Verbal Reasoning

Choose the two words from each group that are the closest in meaning.

late, next, overdue, detained, direct

find, stain, discover, reflect, behind

obstacle, clutch, sincere, shortcut,
difficulty



Late and **overdue** both mean that something is running behind schedule.

Find and **discover** both mean to learn something new.

Obstacle and **difficulty** both refer to something getting in the way of a goal.

11+ Activity Mat 9 Answers

Verbal Reasoning

Place a letter in the box to complete the word in front of the box and begin the word after the box.

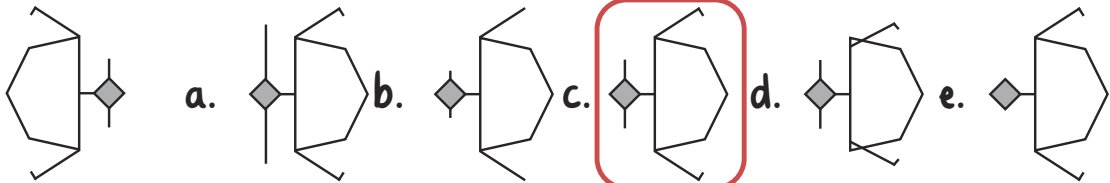
- a. she (d) ate
- b. sea (m) ore
or sea (l) ore
or sea (t) ore
or sea (s) ore
- c. fea (r) oam

- a. Placing **d** in the box makes the words **shed** and **date**.
- b. Placing **m** in the box makes the words **seam** and **more**, or placing **l** in the box makes the words **seal** and **lore**, or placing **t** in the box makes the words **seat** and **tore**, or placing **s** in the box makes the words **seas** and **sore**
- c. Placing **r** in the box makes the words **fear** and **roam**.



Non-Verbal Reasoning

Which of these options is the reflection of the figure?



Option c is the reflection of the figure as it is reflected along a vertical mirror line.

$$£27.50 - £24.75 = £2.75$$

£2.75 is 10% of £27.50.

Jane received a **10% discount**.

Maths

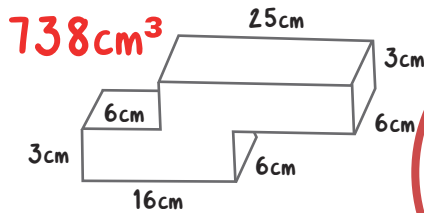
Jane works for a shoe shop and is given a discount card. Jane uses her card to buy a pair of trainers for £24.75. The trainers originally cost £27.50. What discount does she receive?

- a. 2%
- b. 5%
- c. **10%**
- d. 20%
- e. 25%

11+ Activity Mat 9 Answers

Maths

What is the volume of this compound cuboid?

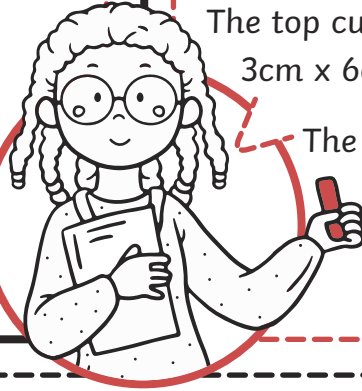


Splitting the shape into two cuboids helps us to solve this problem.

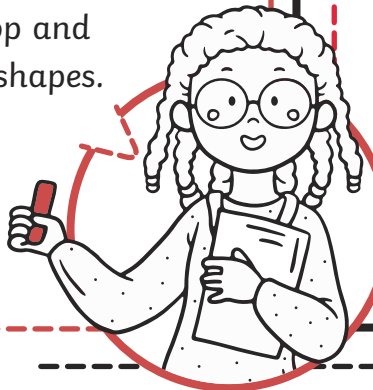
The top cuboid has a volume of $25\text{cm} \times 3\text{cm} \times 6\text{cm} = 450\text{cm}^3$.

The bottom cuboid has a volume of $16\text{cm} \times 3\text{cm} \times 6\text{cm} = 288\text{cm}^3$.

$$450\text{cm}^3 + 288\text{cm}^3 = 738\text{cm}^3$$

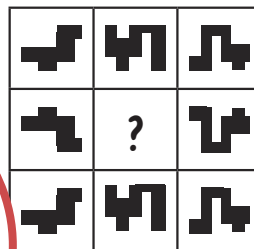


The answer is **c** because the middle row of figures is a reflection of the top and bottom shapes.



Non-Verbal Reasoning

Choose which of these five options would fit into the missing square.



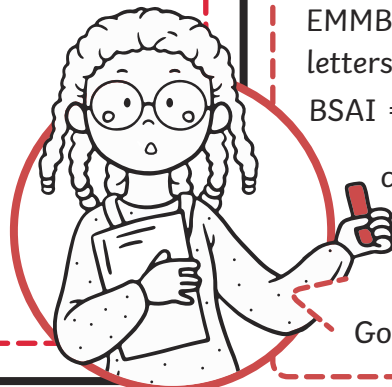
- a. b. c.
- d. e.

Verbal Reasoning

Look carefully at the code and use the alphabet above to work out the answers.

A B C D E F G H I J K L M N
O P Q R S T U V W X Y Z

- a. If FAME is HCOG, what is NWEM?
- b. If GOOD is EMMB, what is BSAI?
- c. If STOP is TUPQ, what is WJMF?



a. FAME = HCOG, so ? = NWEM

HCOG is 2 letters to the right of FAME, so NWEM is 2 letters to the right of the answer. Going left from NWEM = **LUCK**.

b. GOOD = EMMB, so ? = BSAI

EMMB is 2 letters to the left of GOOD, so BSAI is 2 letters to the left of the answer. Going right from BSAI = **DUCK**

c. STOP = TUPQ, so ? = WJMF

TUPQ is 1 letter to the right of STOP, so WJMF is 1 letter to the right of the answer. Going left from WJMF = **VILE**

11+ Activity Mat 10 Answers

Verbal Reasoning

The word in capitals has had THREE consecutive letters removed. Without changing the order of the letters, they should make one correctly spelt word when re-inserted into the main word. Find the three-letter word and put a circle around it. The sentence must make sense.

a. Sarah wanted to CELEBE her birthday at home.

RAT CAT BAT DOE

b. Jack made a mess when cooking in the KITC.

EWE ANT CAT **HEN**

c. The school council had a DEE about the playground equipment.

CAT **BAT** DOE COW

Adding the letters **RAT** to this space in **CELEB*E** makes the word **CELEBRATE**.

Adding the letters **HEN** to this space in **KITC*** makes the word **KITCHEN**.

Adding the letters **BAT** to this space in **DE*E** makes the word **DEBATE**.



X = Inner shape is a circle

Y = Inner shape is a triangle

Z = Inner shape is a square

E = Solid lines

F = Dotted lines

G = Diamond patterned lines



Non-Verbal Reasoning

In this question, there are five shapes. Four have a pair of code letters that describe them but the last shape is missing these. Work out what the code letters mean and then circle the code that is missing.



XF YG YE ZF XG

Maths

Ellis goes to a cycle race and keeps a note of the race times of the riders in minutes:

122, 133, 142, 154, 122, 156, 134

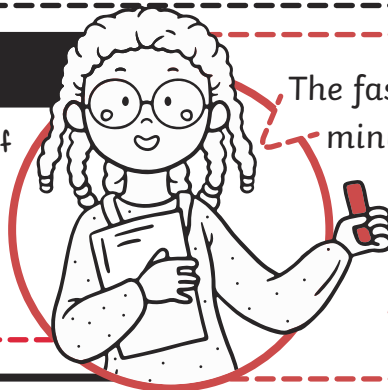
What is the difference between the fastest and slowest times?

34 minutes

The fastest time is 122 minutes and the slowest time is 156.

$156 - 122 =$

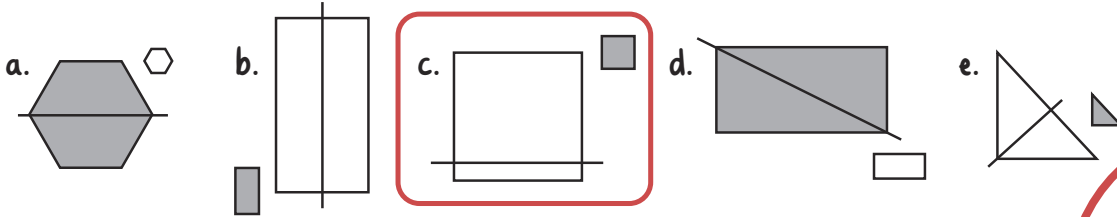
34 minutes



11+ Activity Mat 10 Answers

Non-Verbal Reasoning

Which figure is the odd one out? Circle the correct one.



In all the other figures, the large shape is divided in half.

£150 is split into 5:3:2.

This means it is split into 10 equal parts in total.

$$£150 \div 10 = £15$$

$$5 \times £15 = £75$$

$$3 \times £15 = £45$$

$$2 \times £15 = £30$$

5:3:2

£75: £45: £30

Morgan receives **£45**.



Maths

Jade, Morgan and Kelly's parents give them £150. They are told to share it in a 5:3:2 ratio. How much money will Morgan receive?

£45

Verbal Reasoning

In this activity, letters stand for numbers. Work out the answers to the calculations and write the correct letter.

a. $A = 7$, $B = 9$, $C = 15$, $D = 16$ and $E = 14$.

What is the answer to the sum written as a letter?

$$E + B - A = D$$

b. $A = 9$, $B = 11$, $C = 16$, $D = 4$ and $E = 7$.

What is the answer to the sum written as a letter?

$$D + C - B = A$$

$$E + B - A = ?$$

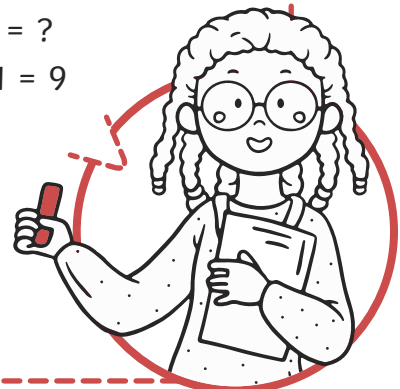
$$14 + 9 - 7 = 16$$

$$16 = D$$

$$D + C - B = ?$$

$$4 + 16 - 11 = 9$$

$$9 = A$$



11+ Activity Mat 11 Answers

Verbal Reasoning

The alphabet is given to help you. Find the pair of letters that will continue the series in the most sensible way.

A B C D E F G H I J K L M N O P Q R

S T U V W X Y Z

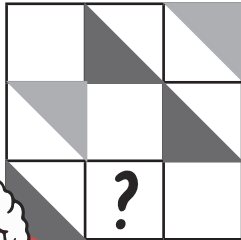
CG DH EI FJ **GK**

The pairs are 4 letters apart from each other and increasing alphabetically.



Non-Verbal Reasoning

Which square completes the grid? Circle the correct answer.



a.



b.



c.



d.



e.



Square a will complete the grid as it needs to be the same as the square 1 square up and 1 square to the left.

Maths

Round this number: 8578

a. To the nearest 10

8580

b. To the nearest 100

8600

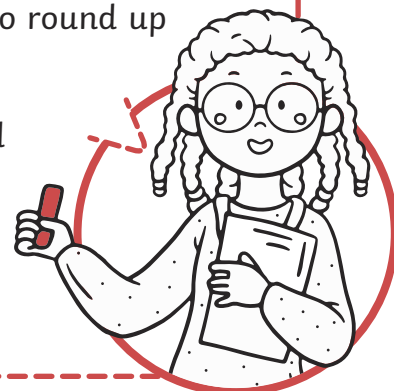
c. To the nearest 1000

9000

8578 to the nearest 10: we need to look at the ones, which is 8, so we need to round up to the nearest 10, giving us 8580.

8578 to the nearest 100: we need to look at the tens, which is 7 tens, so we need to round up to the nearest 100 which is 8600.

8578 to the nearest 1000: we need to look at the hundreds, which is 5 hundreds, so we need to round up to the nearest 1000 which is 9000.



11+ Activity Mat 11 Answers

Maths

What is $\frac{17}{2}$ as a decimal?

a. 9.8

b. 8.5

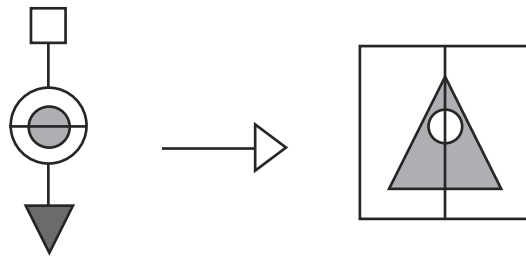
c. 7.2

A whole is $\frac{2}{2}$. There are 8 wholes and $\frac{1}{2}$, which is 8.5 as a decimal.

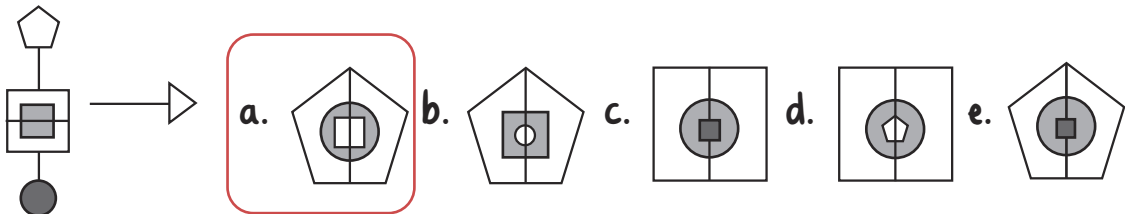


Non-Verbal Reasoning

Look at how the first figure changes to become the second figure.



This figure will be changed in the same way. Circle the figure it will become.



The top shape becomes the largest shape.

The bottom shape is rotated, becomes larger and moves inside the largest shape. The middle coloured shape becomes white and sits in the middle.

11+ Activity Mat 11 Answers

Verbal Reasoning

Find the number that continues the sequence in the most sensible way. Mark the missing number on the answer sheet.

3 7 11 15 19

Each number is increasing by 4.



11+ Activity Mat 12 Answers

Verbal Reasoning

Choose two words, one from each set of brackets, that complete the sentence in the most sensible way. Underline both words.

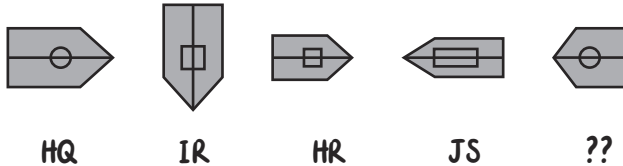
Zoologist is to (nature, health, animals) as
astronomer is to (telescope, stars, clouds).

A zoologist is a person that studies **animals** and an astronomer is a person that studies **stars**.



Non-Verbal Reasoning

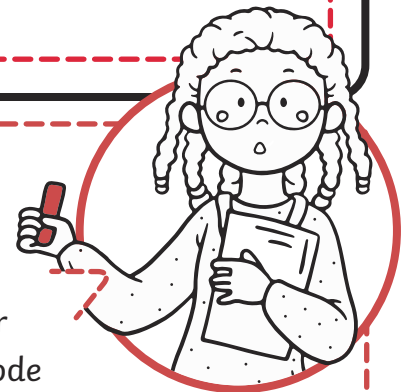
Here are five shapes. Four have a pair of code letters that describe them. Work out what the code letters mean and then circle the code that is missing.



JR IQ **JQ** IS HR

Looking at patterns in the codes, we can see that shapes IR and HR both include a square in the middle, so the R means square. The second letter refers to the smaller shape in the centre. This means we can discount JR and HR from our answers, as we are looking for a circle. HQ has a circle in the middle, so the second letter of our code must be Q.

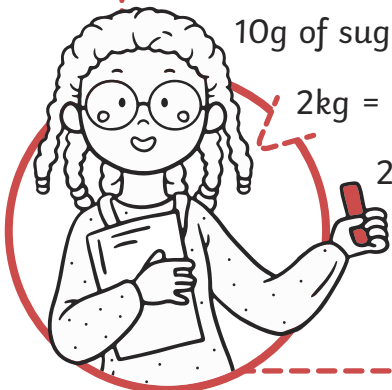
HQ and HR are both the same orientation, so we can assume that the first letter refers to the orientation of the shape. JS has the same orientation, so our shape is JQ.



10g of sugar x 12 cupcakes = 120g.

2kg = 2000g

2000g - 120g =
1880g or 1.88kg



Maths

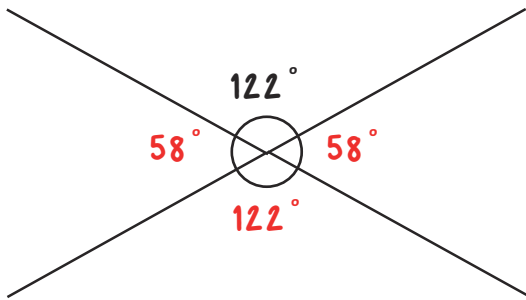
One cupcake requires 10g of sugar. Jesse buys a 2kg bag. How much sugar will he have left after making a batch of 12 cupcakes?

10 x 12 = 120
2000 - 120 = **1880g or 1.88kg**

11+ Activity Mat 12 Answers

Maths

Calculate the missing angles.

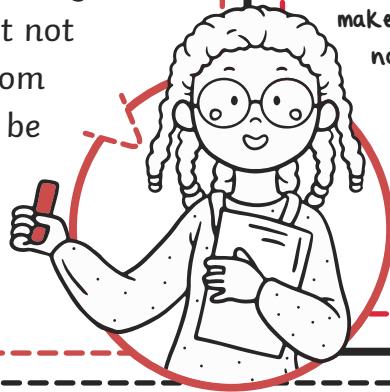


Angles on a point add up to 360° . We already have 122° and we know that the opposite angle is equal, so we have 122° and 122° . Adding those together gives us 244° . $360^\circ - 244^\circ = 116^\circ$. The remaining two angles equal 116° , so divide 116° by two to get 58° each.



Circle one word from each group that together make one correctly spelt word. The letters must not be rearranged. The word from the first group will always be used first.

The words **air** and **port** go together to make **airport**.



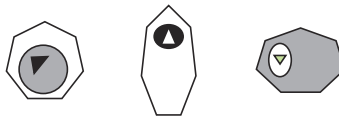
Verbal Reasoning

Circle one word from each group that together make one correctly spelt word. The letters must not be rearranged. The word from the first group will always be used first.

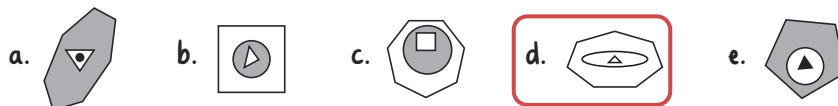
air be saw
ring **port** works

Non-Verbal Reasoning

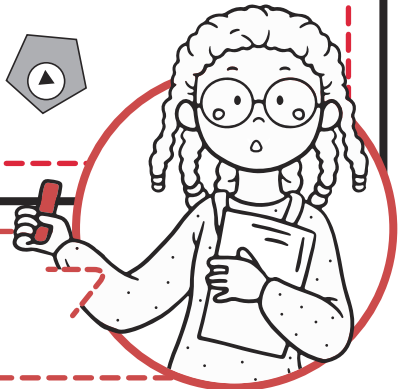
These figures are alike in one or more ways.



Circle one of these figures which is most like the ones above:



The correct figure is **d** as, like the other figures, the outer shape is 7-sided and the inner shape is a circle with a triangle inside.



11+ Activity Mat 13 Answers

Verbal Reasoning

The numbers in each group are related in the SAME way.
Write in the missing number.

Example: (14 [20] 6)

(12 [26] 14)

(17 [26] 9)

The numbers on the outside add together to make each number in the centre of the brackets.



Non-Verbal Reasoning

Draw a circle around the figure to show the odd one out.

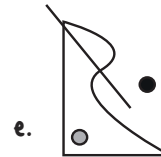
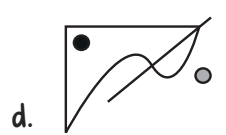
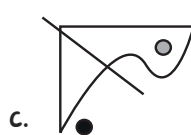
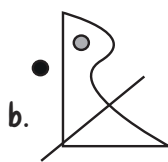
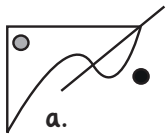


Figure **d** is the odd one out because the rest of the figures have the black circle on the outside.



The answer is **c** because 3 and 15 added together make 18, which is a factor of 36 ($18 \times 2 = 36$).



Maths

Which of these multiples of 3 add up to make a factor of 36?

- a. 3 and 12
- b. 6 and 21
- c. **3 and 15**
- d. 6 and 27
- e. 9 and 12

11+ Activity Mat 13 Answers



The diameter of a circle is the same as the width when going straight through the middle.

136.74cm to the nearest centimetre is **137cm**.

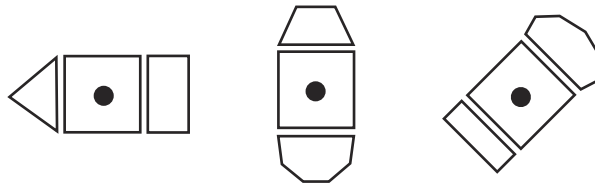
Maths

The diameter of a paddling pool is 136.74cm. How wide is the pool to the nearest centimetre?

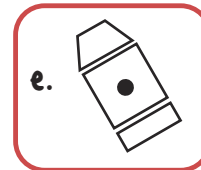
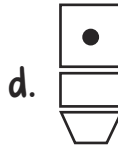
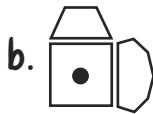
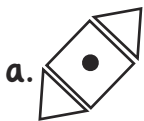
137cm

Non-Verbal Reasoning

These figures are alike in one or more ways.



Draw a circle around the figure below which is most like them.



The figures have a dot in the centre shape, which is a square. The shapes in each figure are all in a row. The shapes at either end of each figure are different.



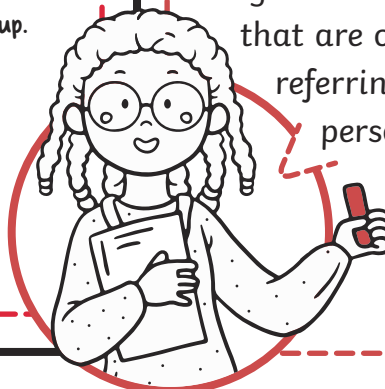
Verbal Reasoning

Find TWO words, one from each group, that are the most OPPOSITE in meaning. Underline one word in each group.

(wealthy sad shallow)

(bejewelled poor upset)

Wealthy and **poor** are the only words in the groups that are opposite, referring to how much a person has.



11+ Activity Mat 14 Answers

Verbal Reasoning

The alphabet is given to help you. Find the letters that will complete the sentence in the best way.

A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z

KK is to HN as FF is to **CI**.

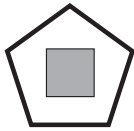
KK to HN: 3 letters to the left of K is H and 3 letters to the right of K is N.

FF to ?: 3 letters to the left of F is C and 3 letters to the right of F is I, giving CI.

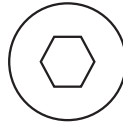


Non-Verbal Reasoning

Here are five shapes. Four have a pair of code letters that describe them, but the last shape is missing these. Work out what the code letters mean and then write the missing code.



A R



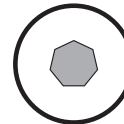
B S



A S



C T



B R

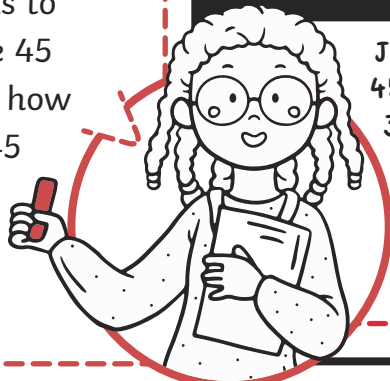


Both shapes with A in the code have the same large shape, so the first letter of the code refers to this. Our shape has the same large shape as BS, so the first letter of the code is B.

Both BS and AS have a white shape in the middle, so the second letter of the code refers to the colour of the smaller shape. Our shape has the same colour as the smaller shape of AR, so the second letter of the code is R, giving us BR.

Rounding the reel lengths to 3 minutes, we can divide 45 minutes by 3 to find out how many reels can fit into 45 minutes if the reels are the largest they can be.

$$45 \div 3 = 15$$



Maths

Jenna has enough space on her phone to store 45 minutes of video. Each reel is between 2 and 3 minutes long. What is the minimum number of videos she will be able to store? Underline the correct answer.

22 12 25 15 9

11+ Activity Mat 14 Answers

The second word is made up by removing the first letter of the first word and then placing the final letter at the start of the word and the third letter in the second position.

We remove the c from carer, place the r at the front of the new word and the e in the second letter position to make rear.

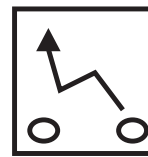
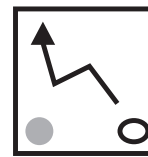
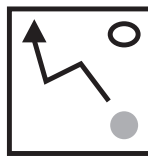
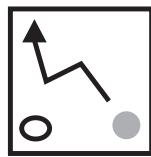
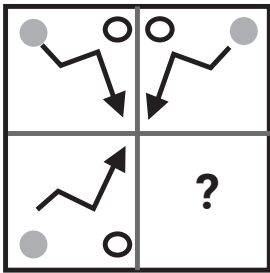
Verbal Reasoning

Find the word that completes the third pair in the same way as the first two examples.

dream mare
punts stun
carer rear

Non-Verbal Reasoning

Which square completes the grid? Tick the correct answer.

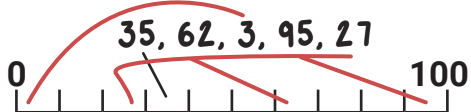


Each square has the arrow pointing towards the centre of the grid, with the coloured circle on the outer corner and the white circle near the middle vertical line.

For this reason it must be the first square.

Maths

Draw arrows to show where the numbers belong on this number line. The first one has been done for you.



The number line is split into increments of 10.

11+ Activity Mat 15 Answers

Verbal Reasoning

One letter from the word on the left can be moved to the word on the right to make TWO new words. The letters must not be rearranged.

chat sand
cave frog

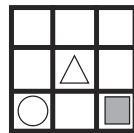
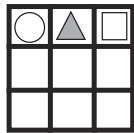
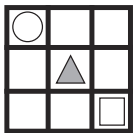
Moving the **n** from **chant** makes **chat** and **sand**.

Moving the **r** from **crave** makes **cave** and **frog**.

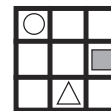
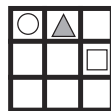
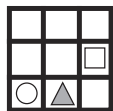
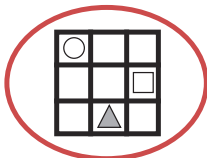


Non-Verbal Reasoning

A figure is missing from this sequence. Tick the figure that is missing.



??



In each step of the sequence, the circle is moving from top to bottom.

The triangle is moving down 1 square each time and changes colour each time.

The square is moving up 1 square each time and changes colour each time.

a) $30 \times 6 = 180$
 $4 \times 6 = 24$
 $180 + 24 = 204$

b) $4 \times 1 = 4$
 $4 \times 0.5 = 2$
 $4 + 2 = 6$

c) $2 \times 5 = 10$
 $0.2 \times 5 = 1$
 $10 + 1 = 11$



Maths

Work out the answer to each calculation:

a) $34 \times 6 = 204$

b) $4 \times 1.5 = 6$

c) $2.2 \times 5 = 11$

11+ Activity Mat 15 Answers

Maths

Work out the change you would get from a £5 note if you spend the following amounts:

a) £2.45 **£2.55**

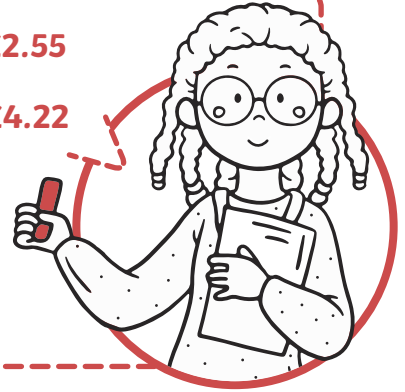
b) 78p **£4.22**

c) £4.62 **38p**

a. $£5.00 - £2.45 = \mathbf{£2.55}$

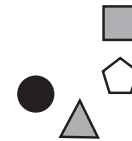
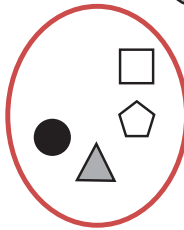
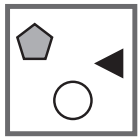
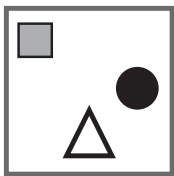
b. $£5.00 - £0.78 = \mathbf{£4.22}$

c. $£5.00 - £4.62 = \mathbf{£0.38}$ or **38p**



Non-Verbal Reasoning

A figure is missing from this sequence. Tick the figure that is missing.



The whole figure is rotated 90° clockwise. The colours move anticlockwise. The large outer shape sits in the top right-hand corner.

$$24 + 9 = 33$$

$$16 + ? = 33$$

$$33 - 16 = \mathbf{17}$$



Maths

Write the number that will complete the sum correctly.

$$24 + 9 = 16 + \mathbf{17}$$

11+ Activity Mat 16 Answers

Verbal Reasoning

The number codes for three of these four words are listed in a random order. Work out the code to answer the question.

SLOW WEST SALE RENT

8214 1368 1932

What is the code for LAST? **3914**

Two of the words start with S and two of the codes start with 1. That means that 1 = S.

This means that the third letter of the word with the code 8214 is S, so 8214 = WEST. Using this, we can work out that 1368 = SLOW and 1932 = SALE, which means LAST = 3914.



Non-Verbal Reasoning

A figure is missing from this sequence. Tick the figure that is missing.

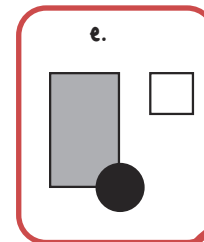
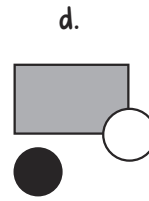
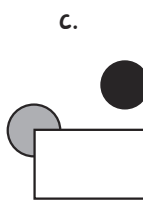
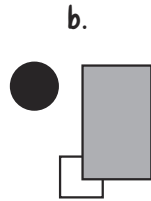
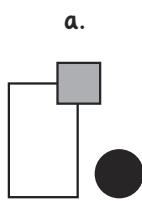


Figure **e** is the odd one out as it is the only one whose black circle is touching the rectangle.



$$0.8 + 3.6 + 1.6 = 6$$

$$2.8 + 2.0 + 1.2 = 6$$

$$2.4 + 0.4 + 3.2 = 6$$

$$0.8 + 2.8 + 2.4 = 6$$

$$3.6 + 2.0 + 0.4 = 6$$

$$1.6 + 1.2 + 3.2 = 6$$

$$0.8 + 2.0 + 3.2 = 6$$

$$2.4 + 2.0 + 1.6 = 6$$



Maths

Every row, column and diagonal in this grid adds up to 6.
Can you fill in the blanks?

0.8	3.6	1.6
2.8	2.0	1.2
2.4	0.4	3.2

11+ Activity Mat 16 Answers



Happy and **pleased** have the most similar meaning.

Verbal Reasoning

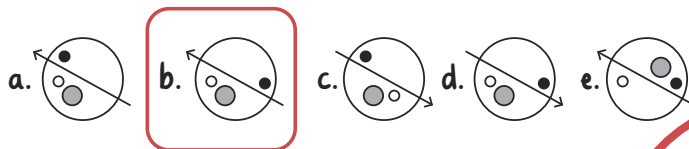
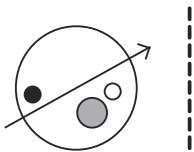
Mark two words (one from each set of brackets) that have the most similar meaning.

(excited nervous **happy**)

(laughing clapping **pleased**)

Non-Verbal Reasoning

Which of the five options is the reflection of the first figure?



The dotted line is a mirror line.

Maths

Use all five of these numbers to complete the calculation beneath:

1 4 5 7 9

$$\boxed{7} \boxed{4} \boxed{5} - \boxed{9} \boxed{1} = 654$$

The first digit must be 7 as we could only reach 654 by subtracting a 2-digit number from a number in the 700s.

We need either 9 and 5 in the units columns or 5 and 1 to get a 4 in the units of the answer.

Using 9 and 5:

$$749 - 15 = 734 \quad \times$$

$$719 - 45 = 674 \quad \times$$

Using 5 and 1:

$$795 - 41 = 754 \quad \times$$

$$745 - 91 = 654 \quad \checkmark$$



11+ Activity Mat 17 Answers

Verbal Reasoning

Look at this code:

A = 3. B = 7. C = 10. D = 11. E = 14.

Work out the letter that represents the numerical answer to this calculation:

$$A \times B - C = D$$

$$A \times B - C = ?$$

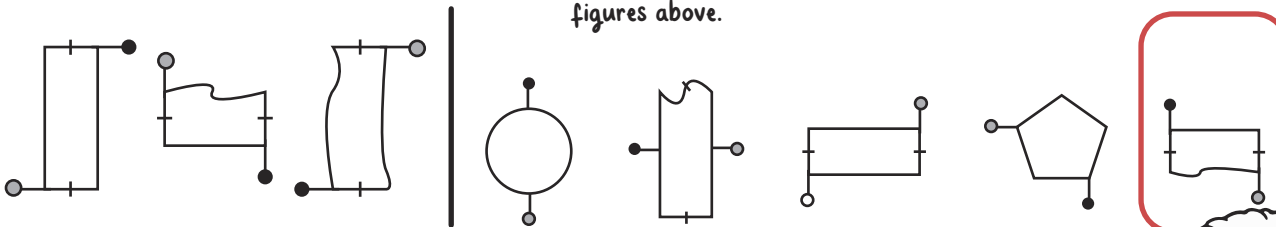
$$3 \times 7 - 10 = 11$$

$$11 = D$$



Non-Verbal Reasoning

Here are three figures which are alike in one or more ways. Choose which of these five options is most like the figures above.



The figure must have a shape in the middle whose ends are straight lines. It needs a black circle on one end and a coloured circle on the other end.



7:30pm in 24-hour time is 19:30. 19:30 to 21:45 is 2 hours and 15 minutes.



Maths

The disco started at the time shown on the clock. It finished when Hayley's digital watch showed 21:45. How long was the disco?

7:30pm

Hours: 2 Minutes: 15

11+ Activity Mat 17 Answers

Maths

Which of these numbers is sixteen thousand and twenty six?

- a. 1 600 026
- b. 16 260
- c. 16 026
- d. 1626

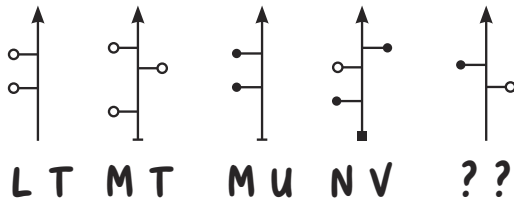
The numbers shown are as follows:

- a. one million, six hundred thousand and twenty-six
- b. sixteen thousand, two hundred and sixty
- c. sixteen thousand and twenty six
- d. one thousand, six hundred and twenty six



Non-Verbal Reasoning

Here are five shapes. Four have a pair of code letters that describe them, but the last shape has the code missing. Work out what the code letters mean and then circle the code that is missing.



- a. L U b. N T c. M V
- d. N U e. L V

The first letter refers to the arrow in the centre, because MT and MU both have the same base on their arrow. That means that the code we are looking for starts with L.

The second letter refers to the colour of the circles, because LT and MT both have only white circles and they share the second letter T in their code. The missing code must share the same second letter as the figure NV, because it has both white and black circles, so the second letter in the code is V.

Verbal Reasoning

Three of the words in this list are linked. Underline the two words that are not related to these three.

terrier boxer bengal
manx poodle

Terrier, boxer and poodle are breeds of dog.

Bengal and manx are breeds of cat.



11+ Activity Mat 18 Answers

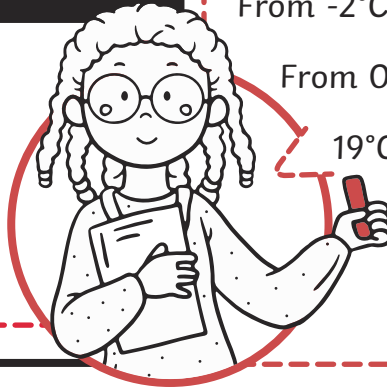
Maths

The temperature in Serena's garden is -2°C .

The temperature in her kitchen is 19°C .

What is the difference between the two temperatures?

21°C



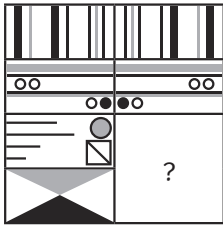
$$\text{From } -2^{\circ}\text{C to } 0^{\circ}\text{C} = 2^{\circ}\text{C}$$

$$\text{From } 0^{\circ}\text{C to } 19^{\circ}\text{C} = 19^{\circ}\text{C}$$

$$19^{\circ}\text{C} + 2^{\circ}\text{C} = 21^{\circ}\text{C}$$

Non-Verbal Reasoning

Which square completes the grid? Circle the correct answer.



a.



b.



c.



d.



e.



The missing square is a reflection of the bottom left square, so it has to be d.

Use trial and error to fit the words into the grid.

Start by finding the words that have a last letter that doesn't appear in any other words: hijack and number.



Verbal Reasoning

Use the words to complete the word grid. You must use all the words.

candle, happen, hijack, jetsam, number, patent

h	i	j	e	c	k
a		e		a	
p	a	t	e	n	t
p		s		d	
e		a		l	
n	u	m	b	e	r

11+ Activity Mat 18 Answers

MCMXCIX = 1999

2013 - 1999 = 14



Maths

Deon watches a film that was released in MCMXCIX.

Deon was born in 2013.

How many years older than Deon is the film? 14

Non-Verbal Reasoning

Look at how the first figure changes to become the second figure. Circle the figure that this figure will become if it is changed in the same way.



The coloured shape rotates 180°, while the large white shape stays the same. The small white shape rotates 180° and turns black.



Verbal Reasoning

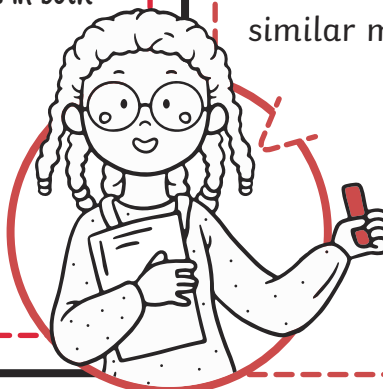
Underline the word that is similar in meaning to the words in both sets of brackets.

(point, position)

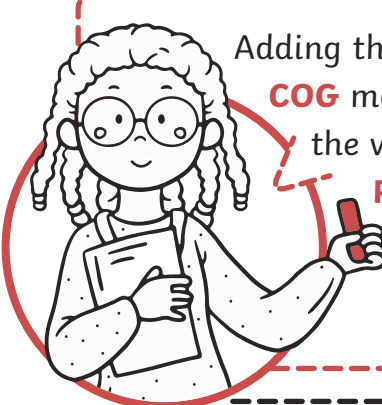
(objective, intention)

motive train goal aim

Point, position, objective and **intention** all have a similar meaning to **aim**.



11+ Activity Mat 19 Answers



Adding the letters
COG makes
the word
RECOGNISE.

Verbal Reasoning


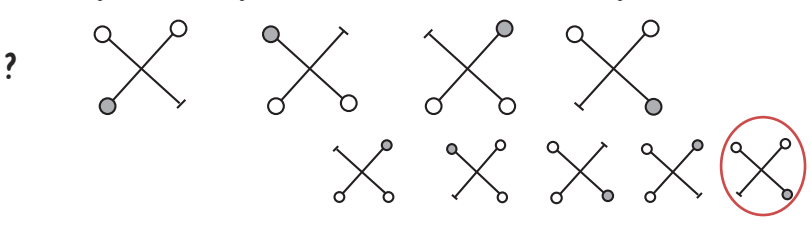
Find the three-letter word that completes the word in capital letters to finish the sentence.

The spy hoped that nobody would **RENISE** them.

RECOGNISE

Non-Verbal Reasoning

A figure is missing from this sequence. Circle the figure that is missing.



The pink circle is rotating 90° each time around the cross, meaning the pink circle will be in the bottom right-hand corner in the missing figure. When the pink circle is at the bottom, the white circles are at the top and vice versa.


The line without a circle is also being rotated 90° each time, meaning it will be on the bottom left-hand corner in the missing figure.

Maths

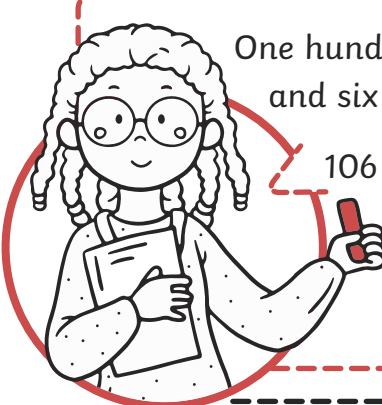
The ice-skating rink measures 23m by 45m. What is the area of the rink?

1035m²

$23\text{m} \times 45\text{m} = 1035\text{m}^2$



11+ Activity Mat 19 Answers



One hundred
and six = 106

$106 - 28 = 78$

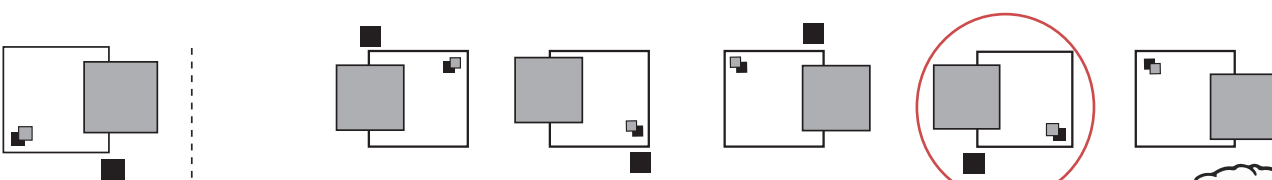
Maths

Ariana has one hundred and six trading cards. She gives away 28. How many does she have left?


78

Non-Verbal Reasoning

Which of the five options is the reflection of this figure? Use the mirror line provided.



The rest of the figures are either rotations or adaptations of the original figure. Option 4 is the only one that is a reflection in the mirror line.



Verbal Reasoning

Underline one word from each bracket to complete the sentence.

Thrifty is to (frugal shrewd cautious)
as extravagant is to (covetous valuable excessive).

Frugal is a synonym for **thrifty** and **excessive** is a synonym for **extravagant**.



11+ Activity Mat 20 Answers

Adding the letter **e** to the first pair makes the words **make** and **ease**.

Adding the letter **k** to the second pair makes the words **pick** and **kite**.



Verbal Reasoning

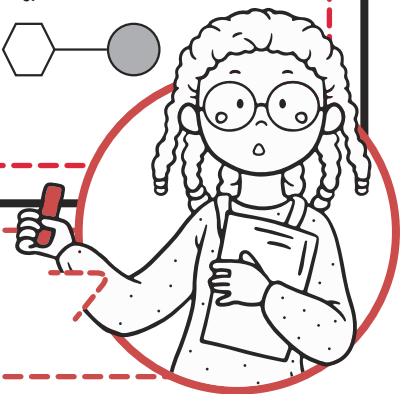
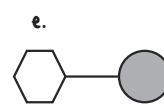
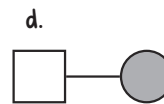
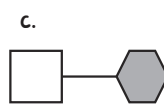
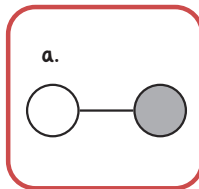
Which letter will finish the word before the brackets and begin the word after the brackets? Choose the correct letter for each one – there are two to try.

mak **(E)** ase

pic **(K)** ite

Non-Verbal Reasoning

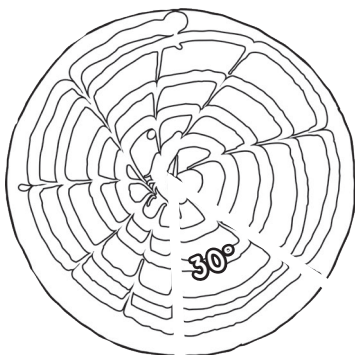
Which figure is the odd one out? Circle the correct answer.



Every figure has two different shapes, apart from a, which has two circles.

Maths

Jenny has cut a slice of cake which is 30° at the point. All the other slices will be the same size. How many slices are there in the whole cake?



12 slices

There are 360° in a whole circle.

$$360 \div 30 = 12 \text{ slices}$$



11+ Activity Mat 20 Answers



43 is the highest. The rest of the numbers all have 4 ones, so we need to look at the decimal part. The digit straight after the decimal point represents the tenths. The number with the lowest number of tenths is **4.19**, meaning it has the lowest value.

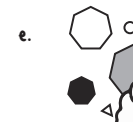
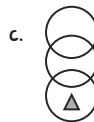
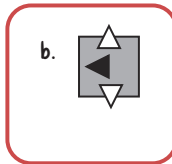
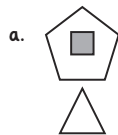
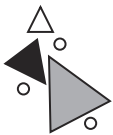
Maths

Which one of these numbers has the lowest value?

4.43 43 4.23 **4.19** 4.3

Non-Verbal Reasoning

Here are three figures which are alike in one or more ways. Choose which of these five options is most like the other figures.



The figures all have three triangles and figure **b** is the only one with three triangles.



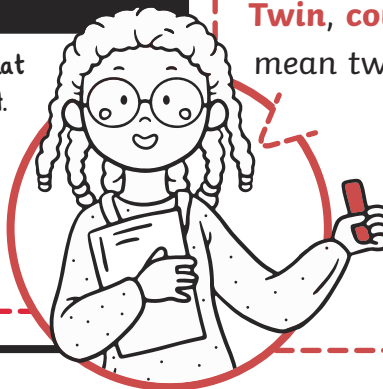
Verbal Reasoning

Three words are related. Can you find the two words that do NOT relate to the other three? Underline them BOTH.

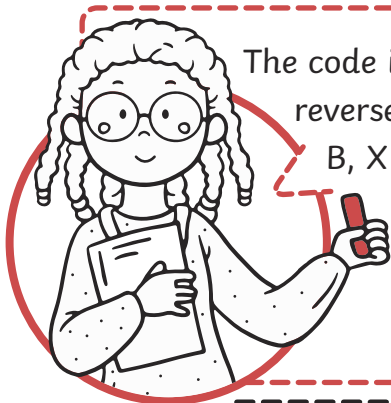
single twin couple

triplet pair

Twin, couple and pair all mean two of something.



11+ Activity Mat 21 Answers



The code is the alphabet in reverse, with Z = A, Y = B, X = C etc.

Verbal Reasoning

ABCDEFGHIJKLMNOPQRSTUVWXYZ

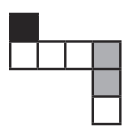
The alphabet is there to help you.
See if you can work out this code:

If SAND is HZMW, what is QLPVI the code for?

JOKER

Non-Verbal Reasoning

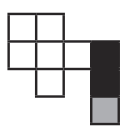
Which figure is the odd one out? Circle the correct answer.



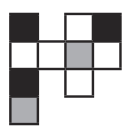
CS



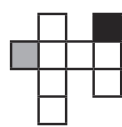
CR



DR



ET

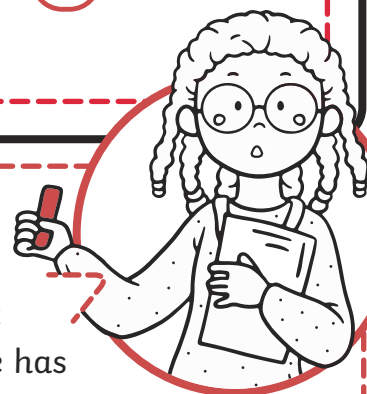


??

- a. DT b. ES c. ER **d. DS** e. CT

Looking at the code, CR and DR both have one letter in common. The thing that they also have in common that none of the others have is that they both have 2 black squares, so we can assume that the second letter R refers to the number of black squares. Our shape has 1 black square, the same as CS, so our second letter is S.

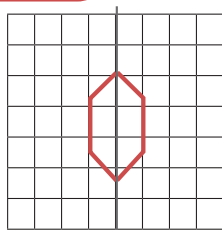
Our shape only has 1 green square, and the only other shape with 1 green square is DR. So we can assume that the first letter refers to the number of green squares, meaning that D = 1 green square, giving us **DS** as our code.



Maths

When the lines on this grid are reflected in the mirror line, what shape is made?

- a. quadrilateral **b. hexagon** c. pentagon d. triangle



Reflecting the lines in the mirror line gives us a six-sided shape, also known as a **hexagon**.

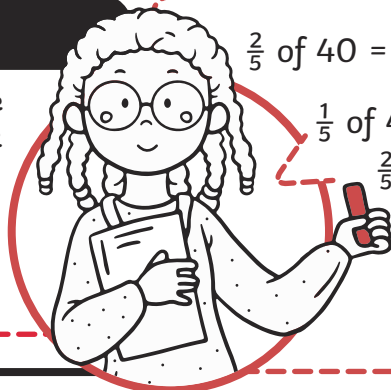


11+ Activity Mat 21 Answers

Maths

A recipe book is forty pages long. The dessert section takes up two-fifths of the book. How many pages are there in this section?

16 pages



$$\frac{2}{5} \text{ of } 40 = ?$$

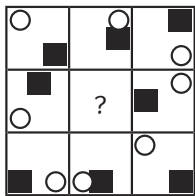
$$\frac{1}{5} \text{ of } 40 = 40 \div 5 = 8$$

$$\frac{2}{5} \text{ of } 40 = 8 \times 2 = 16$$

16 pages

Non-Verbal Reasoning

Which square completes the grid? Circle the correct answer.



a.



b.



c.



d.



e.



The squares show a sequence, moving from the top left-hand corner down to the bottom right-hand corner.

The circles are moving clockwise: top left, top right, bottom right, bottom left. That means that in the missing one, the circle needs to be in the top left again.

The black squares are moving in smaller steps anticlockwise: bottom right, middle right, top right, top middle. That means that in the missing one, the black square needs to be top left.

Worth and **value** both refer to the importance or cost of something.



Verbal Reasoning

Find two words (one from each group) that have the closest meaning.

Underline both.

(deserve worth reward)

(payment price value)

11+ Activity Mat 22 Answers



The last 3 letters of **dragon** and the first letter of **emerged** make the word **gone**.

Verbal Reasoning

In this sentence, a FOUR-letter word is hidden between two words. Underline the hidden word.

The old dragon emerged from the dark cave.

gone

Non-Verbal Reasoning

Which figure is the odd one out? Circle the correct answer.

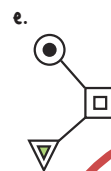
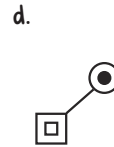
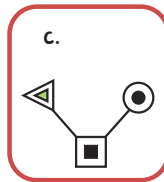


Figure **c** is the odd one out as it is the only one which includes a square with a black square inside.

Maths

The table shows the number of books read by classes during the half term holiday.

No. of books	30	35	40	45	50
No. of classes	5	3	3	2	1

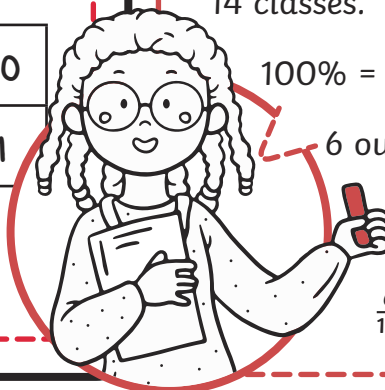
What percentage of classes read more than 35 books? **43%**

There are $5 + 3 + 3 + 2 + 1$ classes in total, which is 14 classes.

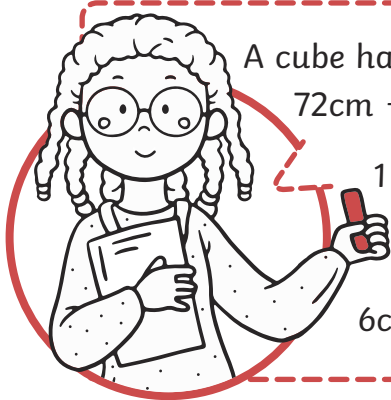
$$100\% = 14$$

6 out of 14 classes read more than 35 books.

$$\frac{6}{14} \times 100 = 43\%$$



11+ Activity Mat 22 Answers



A cube has 12 edges.

$$72\text{cm} \div 12 = 6\text{cm}$$

$$1 \text{ edge} = 6\text{cm}$$

$$\begin{aligned} \text{The area of 1 face} \\ &= 6\text{cm} \times 6\text{cm} \end{aligned}$$

$$6\text{cm} \times 6\text{cm} = \mathbf{36\text{cm}^2}$$

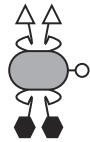
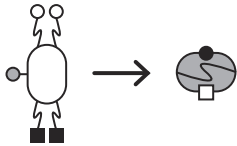
Maths

All the edges of a cube total 72cm. What is the area of one face of the cube?

$$\mathbf{36 \text{ cm}^2}$$

Non-Verbal Reasoning

Look at how the first figure changes to become the second figure. Circle the figure that this figure will become if it is changed in the same way.



a.



b.



c.



d.



e.



In the example, the 'zig-zag' lines become the inside of the shape. The black square becomes a white square. The colour of the interior is inverted. The white circle becomes a black circle.

Following this pattern, the answer is **d**.



Verbal Reasoning

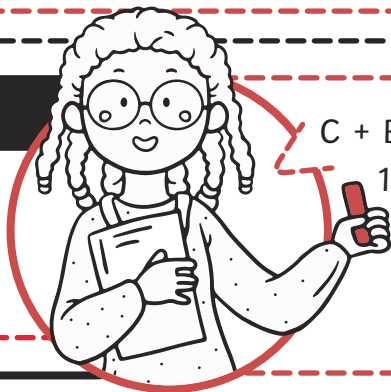
If $A = 18$, $B = 16$, $C = 19$, $D = 20$ and $E = 17$, what is the answer to the sum written as a letter?

$$C + E - B = \mathbf{D}$$

$$C + E - B = ?$$

$$19 + 17 - 16 = 20$$

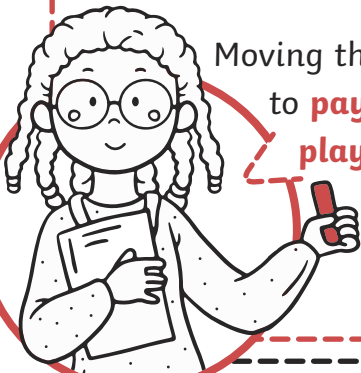
$$20 = \mathbf{D}$$



11+ Activity Mat 23 Answers

Moving the letter **n** from **chant** to **sad** creates **chat** and **sand**.

Moving the letter **l** from **learn** to **pay** creates **earn** and **play**, or, moving the letter **r** from **learn** to **pay** creates **lean** and **pray**.



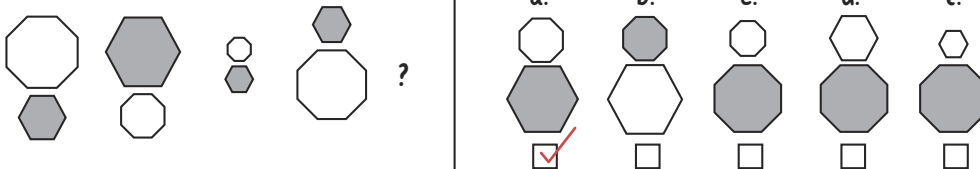
Verbal Reasoning

One letter from the word on the left can be moved to the word on the right, to make TWO new words. The letters must not be rearranged.

a) chant sad chat sand
 b) learn pay earn play
 lean pray

Non-Verbal Reasoning

Which figure is the odd one out? Circle the correct answer.



The sequence of the shapes are as follows:

- The octagon goes from top to bottom to top to bottom and is always white.
- The hexagon goes from bottom to top to bottom to top and is always green.
- The size of the octagons goes big, medium, small.
- The size of the hexagons goes medium, big, small.

Using these rules, the answer is a.

Maths

Which of these pairs are equivalent fractions?

a. $\frac{2}{5}$ $\frac{5}{8}$	b. $\frac{2}{6}$ $\frac{6}{18}$
c. $\frac{3}{15}$ $\frac{5}{20}$	d. $\frac{4}{12}$ $\frac{3}{12}$

$\frac{2}{6}$ and $\frac{6}{18}$ are equal to $\frac{1}{3}$.



11+ Activity Mat 23 Answers

Adding **ASH** to this space in **W*ED** creates **WASHED**.



Verbal Reasoning

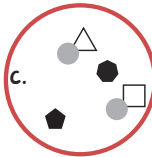
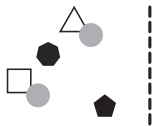
The word in capitals has had **THREE** consecutive letters removed. Without changing the order of these letters they will make one correctly spelt word. The sentence must make sense. Find the three-letter word and mark it on the answer sheet.

He **WED** the car every Saturday.

ASH

Non-Verbal Reasoning

Which of the five options is the reflection of this figure? Use the mirror line provided.



The other figures have all changed, for example, the overlapping of the shapes has changed or the shapes themselves. The only one that is a reflection of the original figure with no other changes is **c**.

Maths

A pack of candles has 3 pink candles and 4 blue candles. Jack wants to decorate the cake with alternate colours until he reaches 20 candles. If he starts with a pink candle, how many packs will he need to buy?

4



He will need 10 pink candles in total, as he needs 1 of each candle alternating to make 20.

There are 3 pink candles per pack, so he will need 4 packs (and will have 2 pink candles left over) as 3 packs would only give him 9 pink candles and therefore not enough.