

# 10-for-10

## Holiday Challenge: Mathematics '10 Challenges for 10 Days'

### ANSWER BOOKLET

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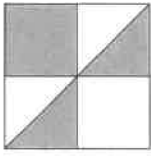
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6

The diagram below is made of squares and triangles. What fraction of the diagram is shaded?



$\frac{1}{2}$  or 0.5

1 mark

7

Kim says, '20,001 cannot be a multiple of 4'. Explain why she is correct.

Possible responses:

Because 20,000 is a multiple of 4 so the next multiple of 4 would be 20,004.

All multiples of 4 are even.

1 mark

8

Jack ran the 100m in 15.4 seconds. Sima ran it two seconds faster. What time did Sima record for her run?

13.4 seconds

1 mark

9

Circle all the fractions which are equivalent to  $\frac{3}{4}$ .

$\frac{6}{8}$

$\frac{5}{6}$

$\frac{12}{16}$

$\frac{18}{24}$

$\frac{7}{11}$

1 mark

10

Write these numbers in ascending order.

0.4

0.48

0.39

0.048

0.41

0.048

0.39

0.4

0.41

0.48

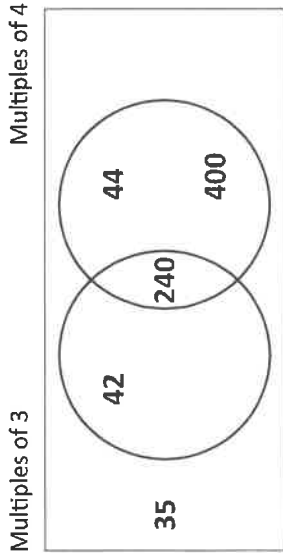
1 mark



6

Write the following numbers in the correct place on this Venn diagram.

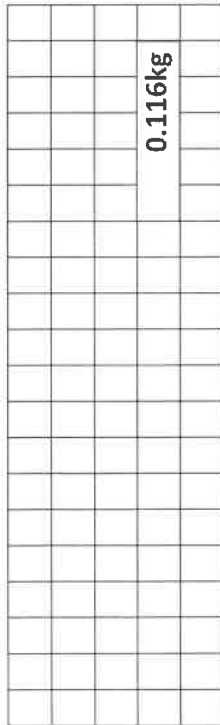
240 44 35 42 400



1 mark

9

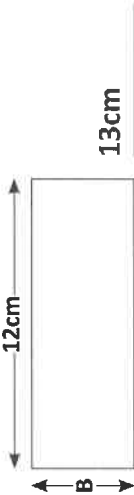
Label (or colour) the diagram below so that the ratio of red (R) to green (G) is 5:2. Two have been completed for you.



1 mark

10

I think of a number. I halve it and add 2. I then multiply it by 3. My answer is 48. What is my number?



1 mark

1 mark

# PIXL Day 4

PRIMARY

## Reasoning Questions

1 mark

28

1 mark

8

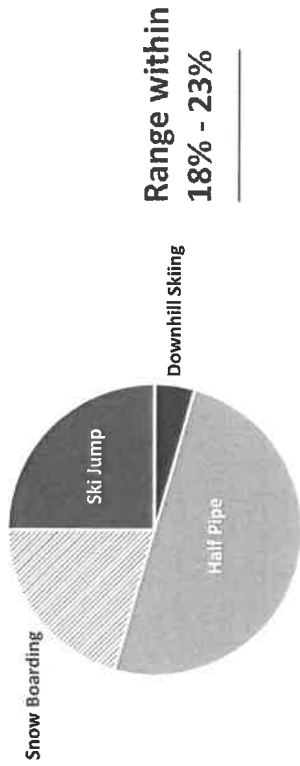
The rectangle below has a perimeter of 50cm. Find the missing distance labelled 'B'.



6

The pie chart below shows the favourite events at the Winter Olympics. Use the information to estimate the percentage of people who liked snowboarding the most.

Favourite events at the Winter Olympics



1 mark

7

Circle the number that is 100 times greater than 5.6

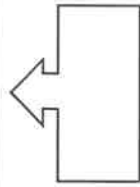
0.56   56   5,600   **560**   5,006

1 mark

8

Estimate the number shown by the arrow.

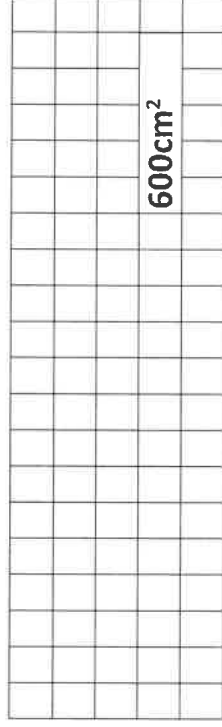
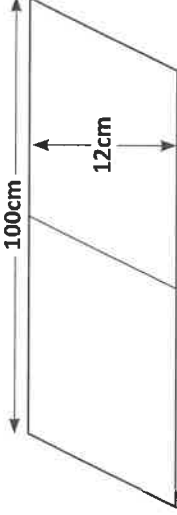
50,000   **75,000 (accept 73,000 - 77,000)**   100,000



1 mark

9

A floor is covered in tiles in the shape of identical parallelograms. Calculate the area of **one parallelogram** from the information below. Show your working.



1 mark

10

In the ski jumping event in the Winter Olympics, five athletes jumped the following distances. Calculate the **mean** of their distances.

147.2 m   145m   0.14km   137.8m   145m

**143** m

1 mark







6

Complete the bus timetable below.

Route	Departure Time	Arrival Time	Duration of Journey
Dibden - Sutton	0945	1040	55 Minutes
Tullington - Fripton	1115	1340	2hrs 25 Minutes
Sibsey - Monkton	1430	1545	1hr 15 Minutes

1 mark

9

$\frac{2}{6}$  of the 360 children in a school come by car.  $\frac{2}{6}$  cycle to school.

How many of the children travel to school in other ways?

Show your working.


1 mark

8

Circle all the common multiples of 5 and 6.

- 30   55   120   90   66

1 mark

10

Insert a pair of brackets to make this statement true.

$$15 + (9 \times 8) = 87$$

1 mark

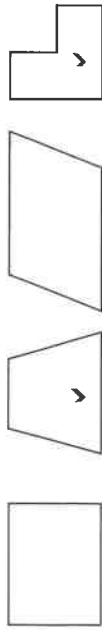
# PiXL Day 9

PRIMARY

## Reasoning Questions

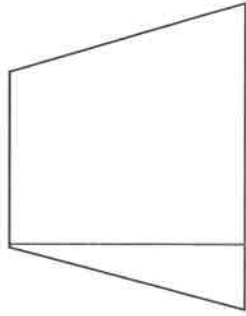
6

Tick inside the shapes which have exactly one line of symmetry.



7

Draw 1 perpendicular line inside this shape to create a trapezium and a triangle.



One possibility

8

Insert one of these symbols into each box to make the statements true. < > =

$$\frac{5}{6} = \frac{10}{12}$$

$$75\% > 0.6$$

$$5\% = 0.05$$

1 mark

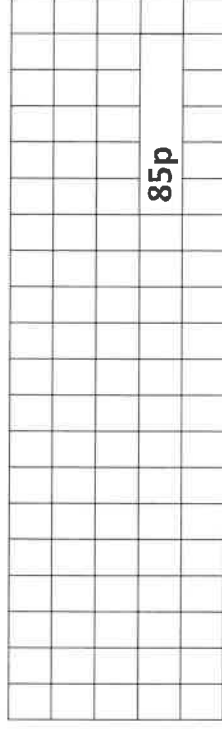
# PiXL Day 10

## Reasoning Questions

PRIMARY

9

Amina posts four large letters. The postage costs the same for each letter. She pays with a £20 note. Her change is £16.60. What is the cost of posting one letter? Show your working.

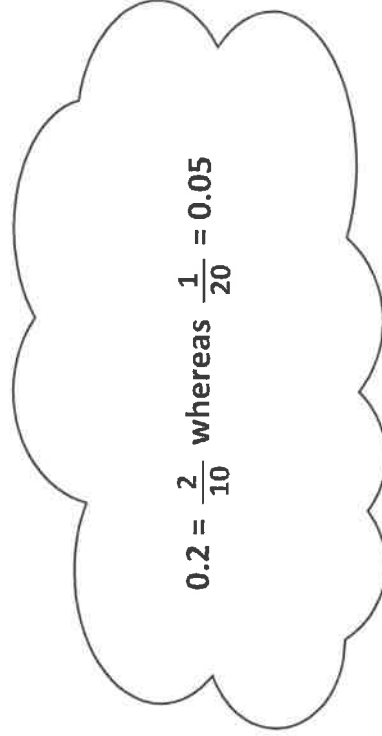


1 mark

10

James says 0.20 is equivalent to  $\frac{1}{20}$ .

Is he correct? Yes / No Explain how you know.



1 mark