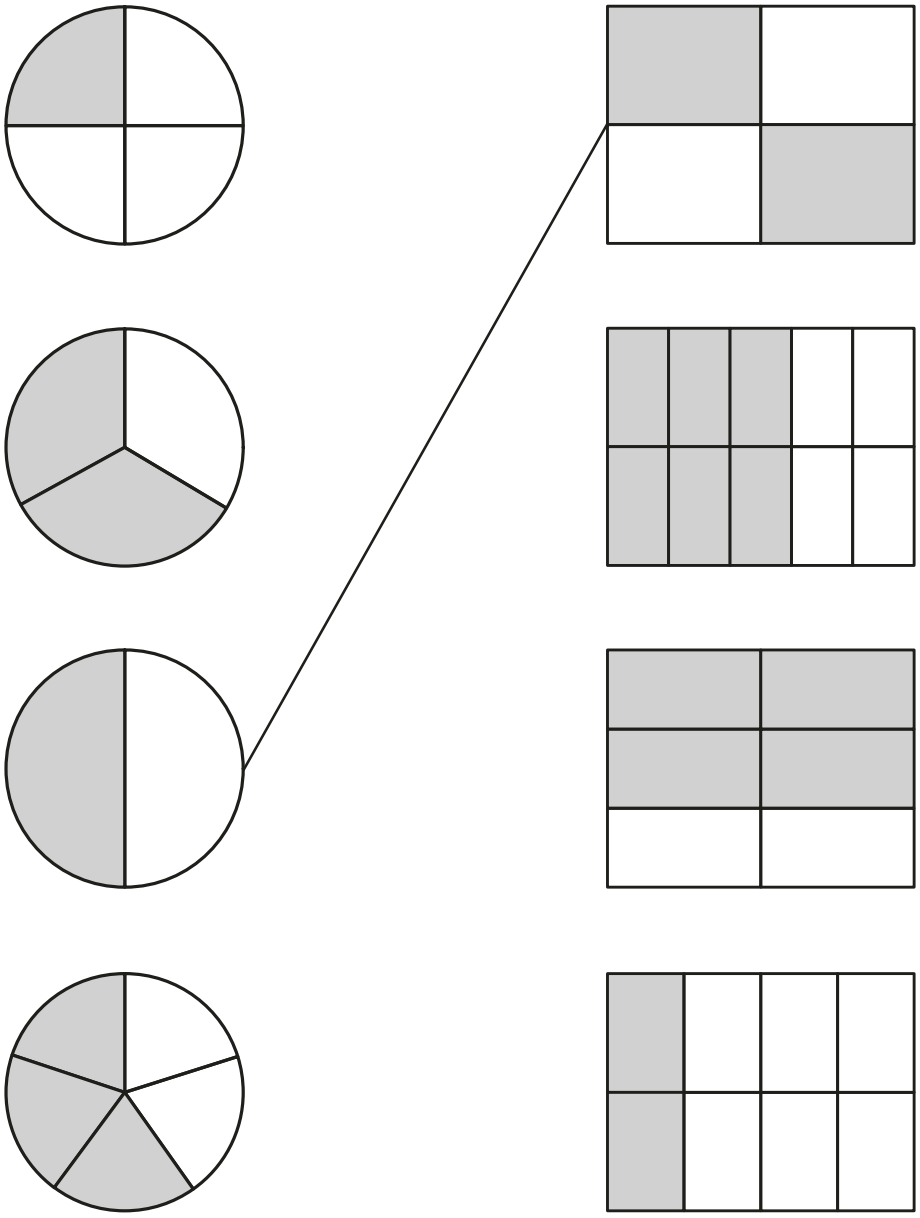
1 These shapes have a fraction shaded.

Match each shaded fraction of a circle to the same shaded fraction of a rectangle.

One has been done for you.



1 mark

2 The temperature in a freezer is −40 °C.

The temperature increases by 10 °C.

What is the new temperature?

°C

1 mark

4 The diameter of the Moon is 3,476 kilometres.

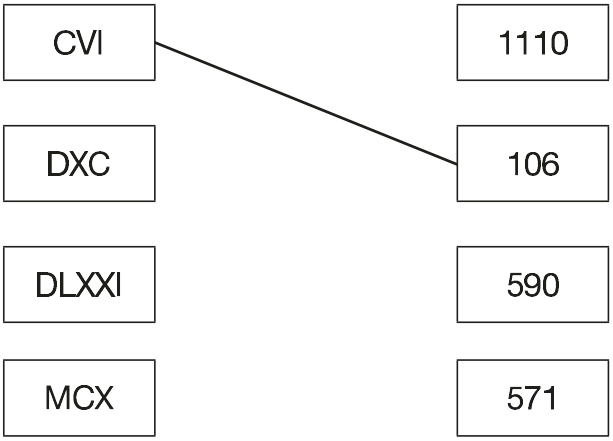
What is this diameter to the **nearest hundred** kilometres?

km

1 mark

5 Match each of these Roman numerals to the correct number.

One has been done for you.



1 mark

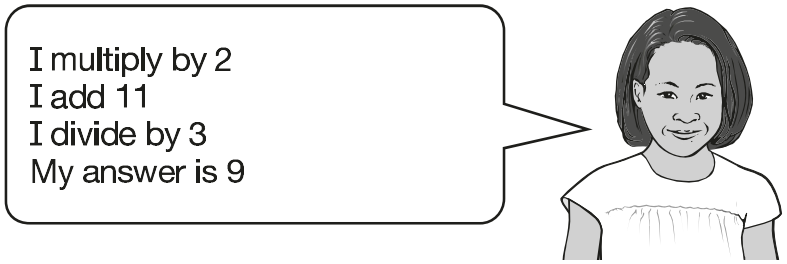
6 Match each fraction to its equivalent simplified fraction.

One has been done for you.

Fraction	Simplified fraction
$\frac{12}{20}$	$\frac{4}{5}$
$\frac{12}{15}$	$\frac{2}{3}$
$\frac{12}{16}$	$\frac{3}{5}$
$\frac{12}{18}$	$\frac{3}{4}$

1 mark

7 Emma thinks of a number. She says,

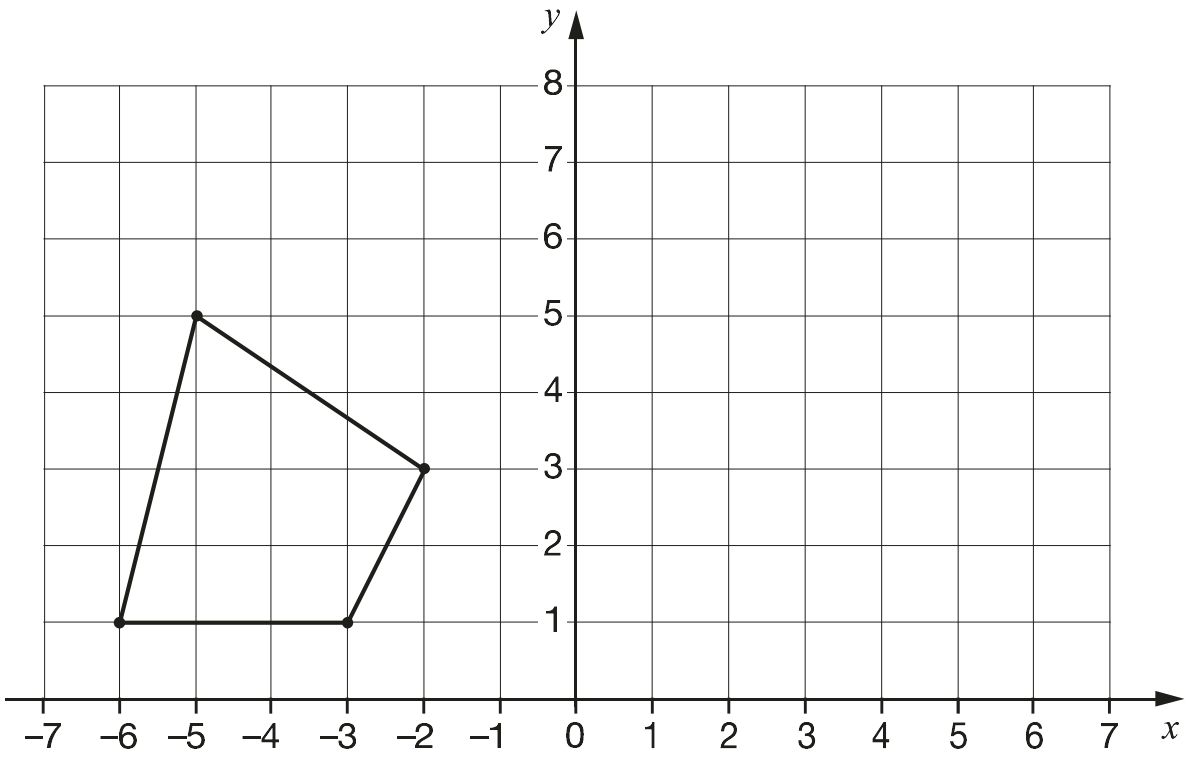


What number did Emma think of?

1 mark

8 Here is a shape.

Draw the shape after it is translated 8 units to the right.



1 mark

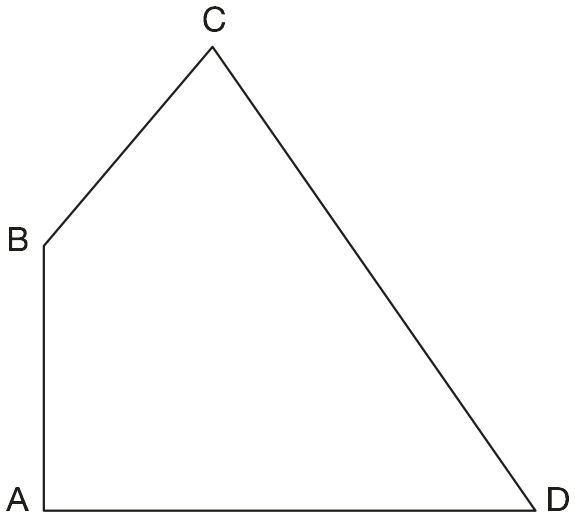
Use a ruler.

9 Write the missing numbers in the table.

Number of weeks	Number of days
1	7
2	14
4	28
6	
10	
	105

1 mark

10

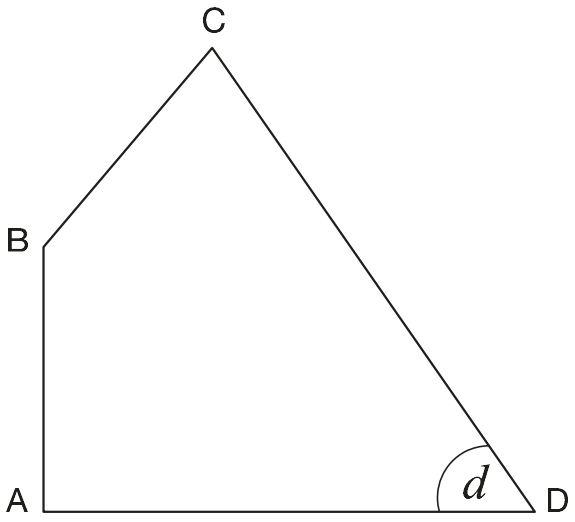


What is the perimeter of the shape, **in millimetres**?

Use a ruler.

mm

1 mark



Measure the size of angle d.

Use an angle measurer.

d is °

1 mark

11 Write the missing digits to make this **subtraction** correct.

$$\begin{array}{r} 5\ 7\ \square \\ -\ 3\ \square\ 5 \\ \hline \square\ 6\ 8 \end{array}$$

2 marks

12 Here are four fractions.

$\frac{7}{8}$ $\frac{1}{5}$ $\frac{3}{4}$ $\frac{8}{10}$

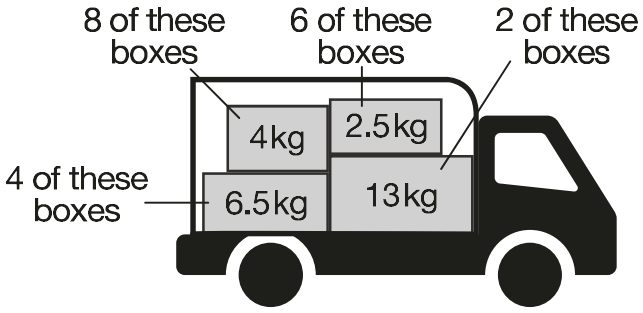
Write the fractions in order starting with the least.

least

1 mark

13 There are 20 boxes on a truck.

The boxes are in 4 different sizes.



What is the **total mass** of the 20 boxes on the truck?

Show your method

kg

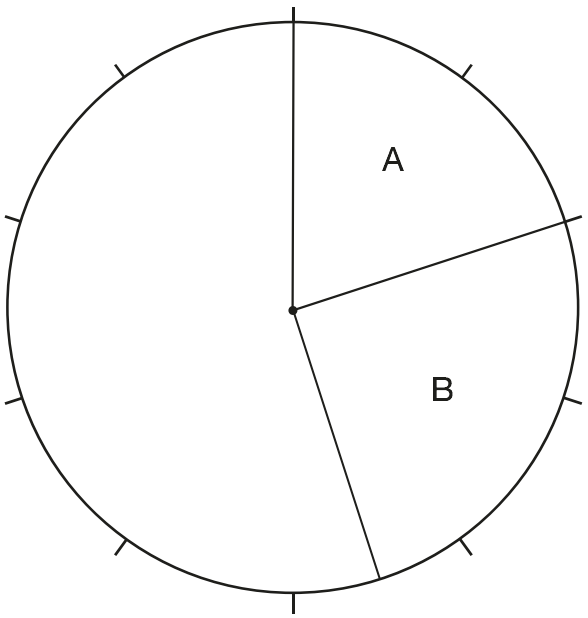
2 marks

14 Look at the data in this table.

Label	Percentage
A	20%
B	25%
C	15%
D	30%
E	10%

Using this data, draw **two** lines and write **three** labels to complete the pie chart.

Use a ruler.



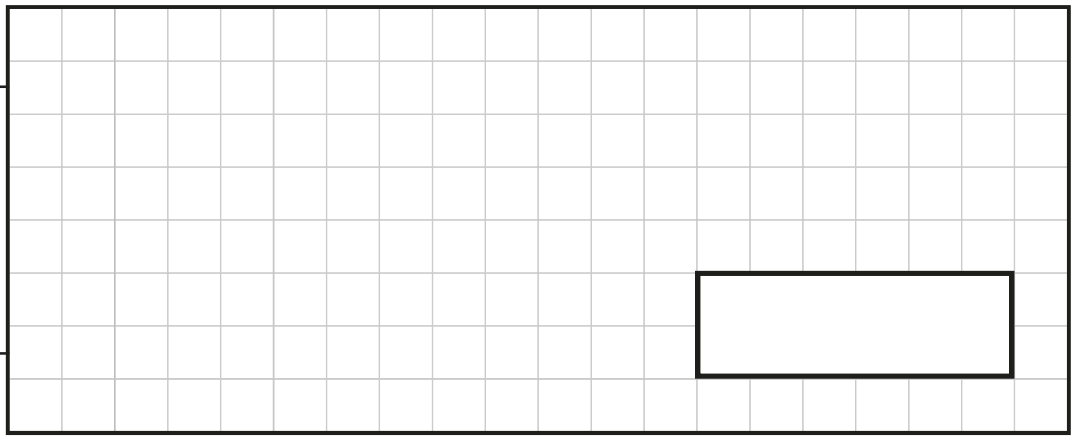
2 marks

15 35% of the 680 pupils at a school have a pet dog.

159 of the pupils who have a pet dog are boys.

How many of the pupils who have a pet dog are girls?

Show your method



2 marks

16 Write a number in the box to make this correct.

$$\frac{3}{5} < \frac{\square}{100} < 0.7$$

1 mark

17 Tick the numbers that are factors of both 54 **and** 72

2 ☐

3 ☐

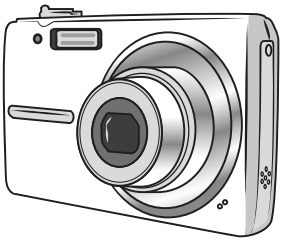
4 ☐

8 ☐

9 ☐

1 mark

18 Layla wants to buy a camera that costs £65



For the first 10 weeks, she saves £2 each week.

Then she saves £3 each week.

How many weeks **altogether** does it take Layla to save £65?

Show your method

weeks

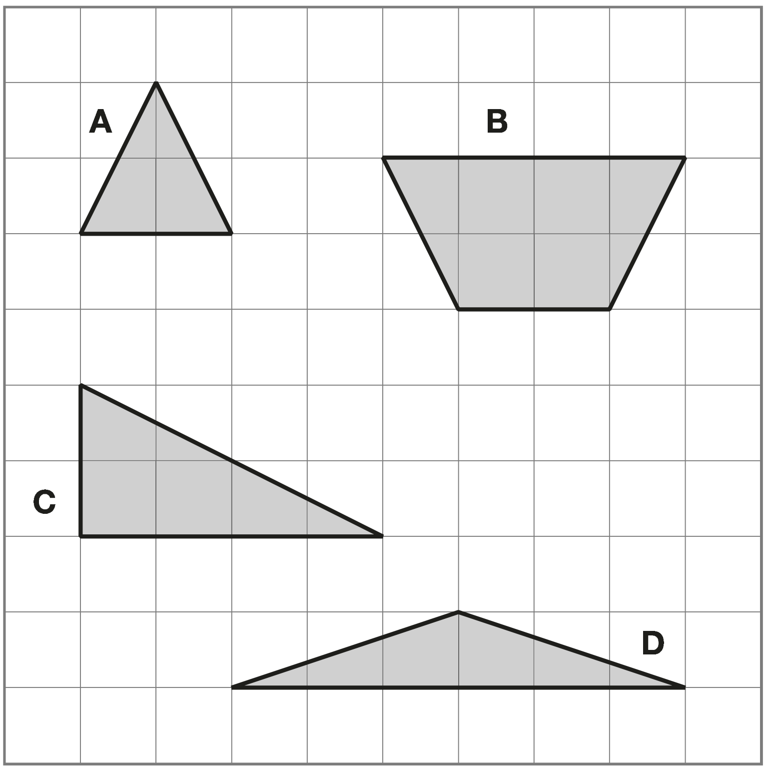
2 marks

19 Complete this division.

$$\begin{array}{r|l} & \square\ 6\ 4\ \text{r}1 \\ \hline 12 & 4\ 3\ 6\ \square \end{array}$$

2 marks

20 Here are four shapes on a grid.



Write the letters of **all** the shapes that have **only two** acute angles.

____

1 mark

21 A band holds a concert for charity.

The tickets cost £27 each.

They sell 635 tickets.

They pay £3,180 to use the hall.

They give one-third of the **remaining** amount to charity.

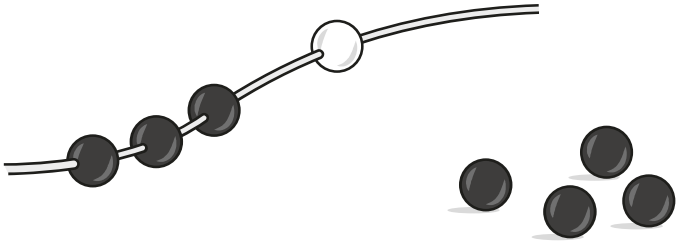
How much money does the band give to charity?

Show your method

£

3 marks

22 Sarah makes jewellery using black and white beads.



She uses this rule to work out how many black beads to use.

black = (white × 3) + 4

Sarah uses 12 **white** beads to make a necklace.

How many black beads does she use?

1 mark

Sarah uses 25 **black** beads to make a bracelet.

How many white beads does she use?

1 mark

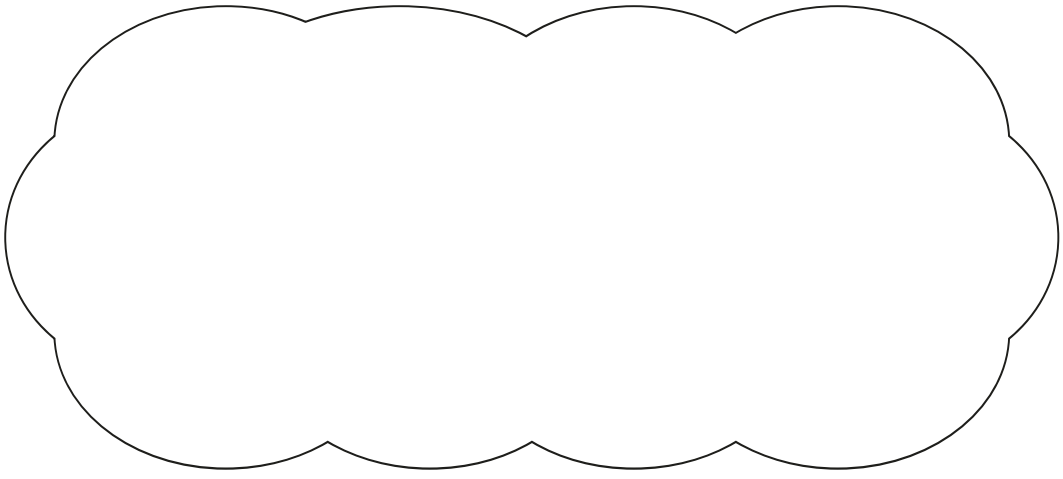
23 Complete the table.

Name of 3-D shape	Number of faces
cube	
pentagonal prism	
triangular-based pyramid	

1 mark

24 $\frac{1}{2} \times \frac{5}{6}$ is greater than the value of $\frac{1}{3} \times \frac{7}{8}$

Explain how you know.



1 mark