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Year 5 Mid-year Reasoning: Test B

Name	
Class	
Date	

Arithmetic

Y5

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1. Circle the **two** fractions that are less than $\frac{1}{2}$

$$\frac{5}{8} \qquad \frac{4}{10} \qquad \frac{2}{8} \qquad \frac{7}{10}$$

1 mark

2. Here is part of a number sequence. The numbers increase by the same amount each time.

| 425 | 430 | 435 | 440 | 445 |

The sequence continues.

Circle **all** of the numbers below that would appear in the sequence.

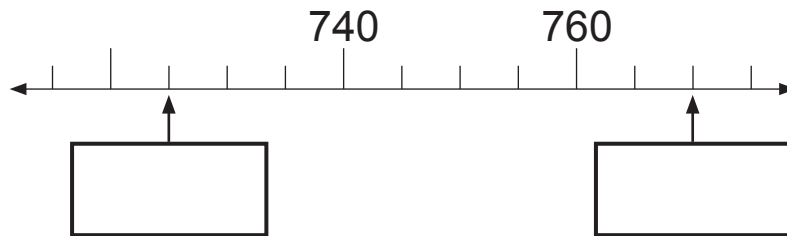750   815   999   1,005   2,552

1 mark

3.   Here is part of a number line.

Write the two missing numbers in the boxes.

740   760

1 mark

1 mark

4.   Circle **three** numbers that add to make a **multiple** of **10**
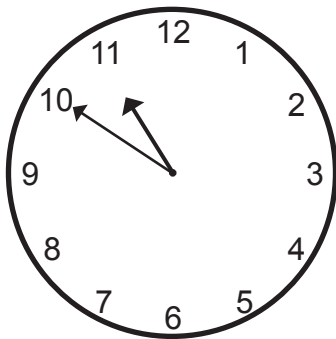
21   22   23   24   25   26   27   28   29

1 mark

5. Write in the missing number.

$$20 \quad \times \quad 10 \quad = \quad 25 \quad \times \quad \boxed{}$$

1 mark

6. Playtime starts at

It finishes at 11:15

How many minutes long is playtime?

$\boxed{}$ **minutes**

1 mark

7. Match each fraction to the percentage which has the same value.

80%

$\dfrac{1}{2}$ 50%

$\dfrac{2}{5}$ 10%

$\dfrac{3}{10}$ 20%

$\dfrac{20}{25}$ 30%

40%

2 marks

8.

Holly, Jason and Mia take part in a sponsored run to collect money for charity.

Holly collects £2 **more** than Mia.

Jason collects £23

Mia collects £6 **less** than Jason.

Altogether how much money do the three children collect?

Show your method

£

2 marks

9. It is estimated that the population of a town will increase by **10,000** every year.

In **2015** the population of the town was **236,000**

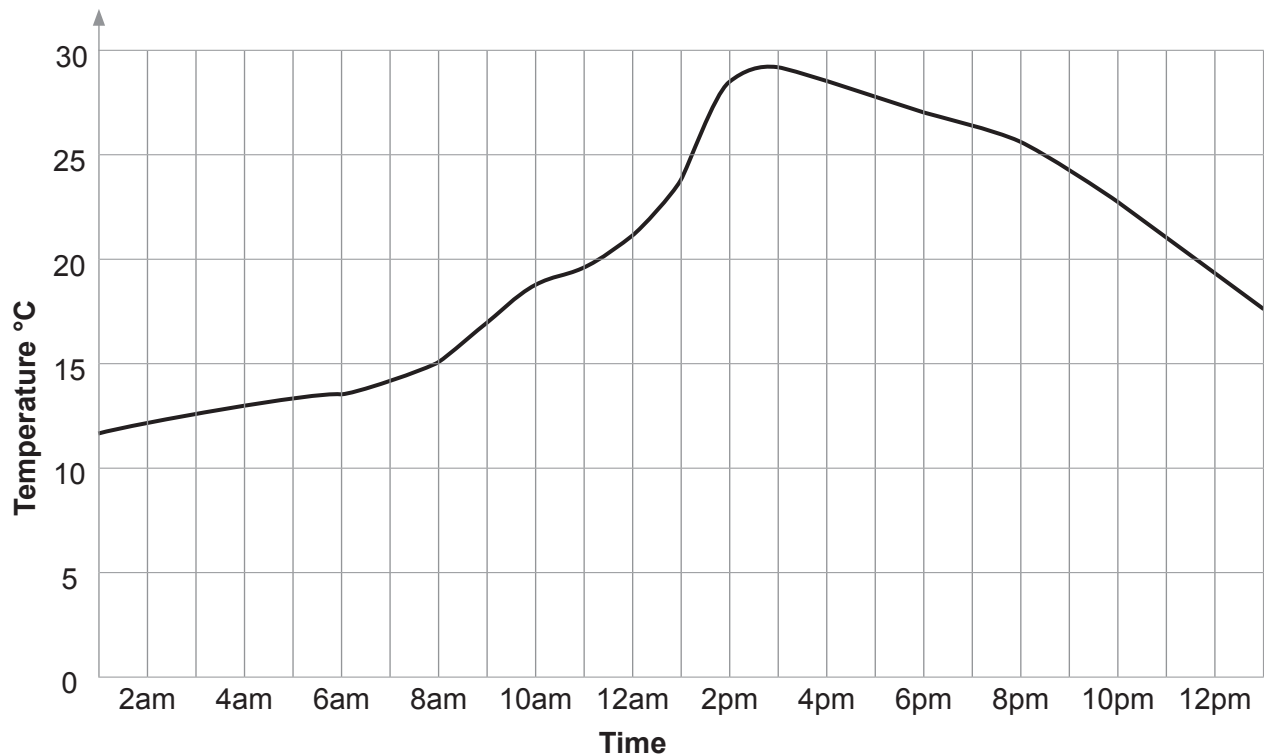What will the population of the town be in **2021**?

1 mark

10. Complete the equivalent fractions.

$$\frac{\boxed{}}{6} = \frac{2}{3} = \frac{6}{\boxed{}}$$

1 mark

1 mark

7

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11. The line graph below shows the temperature on the hottest day of the year in 1994.

What was the temperature at **4 am**?

°C

1 mark

How much did the temperature increase between **2 am** and **2 pm**?

°C

1 mark

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12.   Use the table to work out the approximate equivalents.

1 inch is about 2.5 cm
1 pint is about 570 ml
1 pound is about 450 g

Circle the correct answers.

10 inches is about...

2.5 mm   25 mm   250 mm   2500 mm

10 pints is about...

5.7 litres   57 litres   57 ml   5.7 ml

10 pounds is about...

0.45 kg   4.5 kg   45 kg   450 kg

2 marks

13.   A family eats $\frac{3}{5}$ of a loaf of bread every day.

How many loaves of bread will they eat in 10 days?

loaves

1 mark

14. Write these numbers in order, starting with the **smallest**.

5.1   5   5.4   5.14   5.04

smallest

1 mark

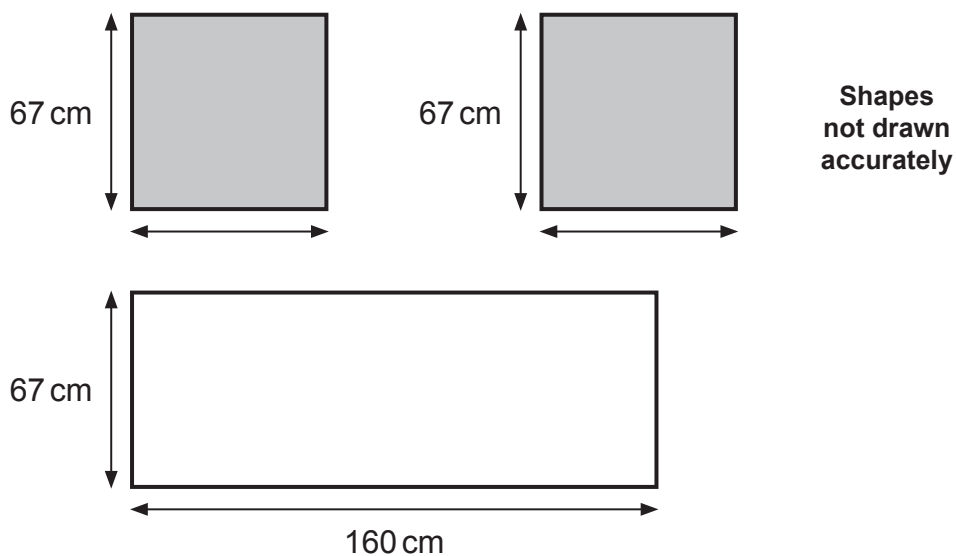**15.** Jason collects **20p** coins.

Holly collects **5p** coins.

They have each collected **£6**

How many **more** coins does Holly have than Jason?

Show your method

2 marks

16. Mia has two identical squares and a rectangle.

67 cm

67 cm

Shapes not drawn accurately

67 cm

160 cm

She puts the two squares on top of the rectangle.

160 cm

67 cm

x
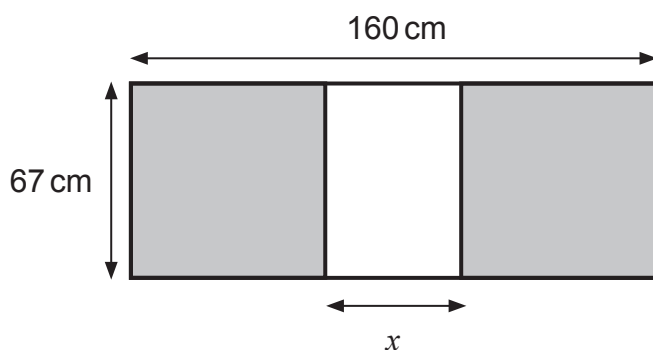
What is the length of x?

Show your method

cm

2 marks

17.

Circle the decimal that equals $\dfrac{38}{1000}$

0.00038   0.0038   0.38000   0.038   0.38

1 mark

18.   Holly, Jason and Mia play two games.

Winning game A is worth **50** points.

Winning game B is worth **100** points.

The table shows the points they have.

Complete the table for Jason and Mia.

Player	Number of wins		Total points
	Game A	Game B	
Holly	2	1	200
Jason	5	4	
Mia		5	950

1 mark

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19. Write the missing numbers to make the calculations correct.

$$\frac{\boxed{}}{5} + \frac{2}{10} = \frac{4}{5}$$

1 mark

$$\frac{1}{4} + \frac{\boxed{}}{8} = \frac{7}{8}$$

1 mark

20. Jason drinks **320 ml** of milk every day.

How many **litres** of milk does he drink in **7** days?

	litres

1 mark

21. Three **different** numbers add up to **100**

All the numbers are **greater than 30**

Two of the numbers are **odd**.

Write what the three numbers could be.

$$\boxed{} + \boxed{} + \boxed{} = 100$$

1 mark

22.   17 × 19 = 323

Use the fact above to find the missing numbers below.

170 × 190 = [   ]

3,230 ÷ 19 = [   ]

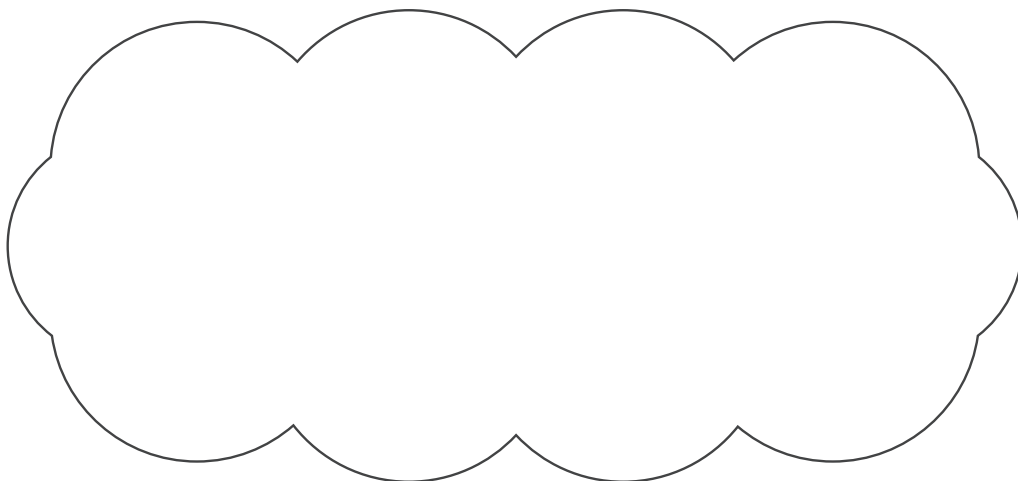1,700 × [   ] = 32,300

2 marks

23.   Holly has this star.
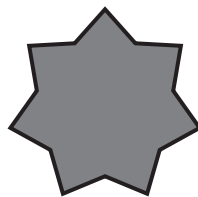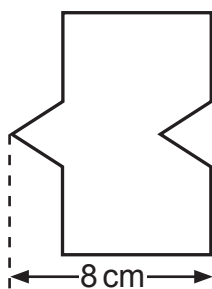
All the sides of her star are the same length.

Holly says, *'my star is a regular shape.'*

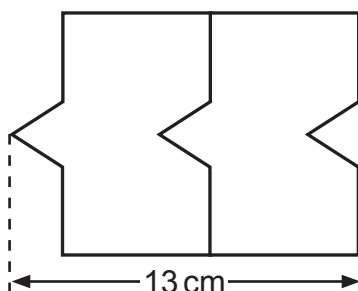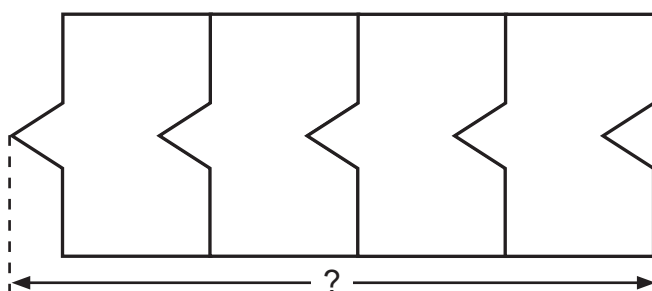Holly is **not** correct.
Explain how you know.

1 mark

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24.   Mia has some tiles.

Not drawn accurately

|←——8 cm——→|

Each tile is 8 cm long.

|←————13 cm————→|

Two tiles fitted together are 13 cm long.

|←————————— ? —————————→|

Calculate the length of **four** tiles fitted together.

Show your method

cm

2 marks