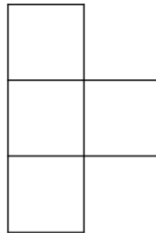


Sample Worksheet – Mixed Questions

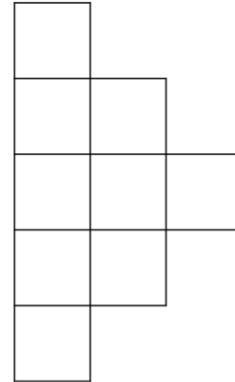
1. Mona is making patterns with square tiles.



Pattern 1



Pattern 2



Pattern 3

How many squares will there be in Pattern 4? Write your answer in the space below.

2. Stephanie does the calculation below on her calculator.

$$24 \times 52 = 1248$$

Write the answers to the calculations below in the boxes. You can use the calculation above to help you.

$$12 \times 52 = \boxed{}$$

$$12 \times 26 = \boxed{}$$

$$1248 \div 52 = \boxed{}$$



3. The table below shows the maximum and minimum temperatures in Belfast during October and November last year. Calculate the difference between the maximum and minimum temperatures for each month.

| Month | Maximum Temperature | Minimum Temperature | Difference |
|----------|---------------------|---------------------|------------|
| October | 16 °C | 3 °C | |
| November | 12 °C | -4 °C | |

-
4. Subtract 68691 from 91015. Write your answer in the space below.

-
5. Add the two numbers 56250 and 14445. Write your answer in the space below.

-
6. Aoife sells solar panels. One week (7 days) she counts the number of solar panels she sells every day.

She works out that the **mean (average)** number of solar panels she sells is 4.

The **range** is 5.

The **smallest** number is 2.

What was the **highest** number of solar panels Aoife sold? Write your answer in the space below.

7. What is the total number of solar panels Aoife sold over the whole seven days? Write your answer in the space below.



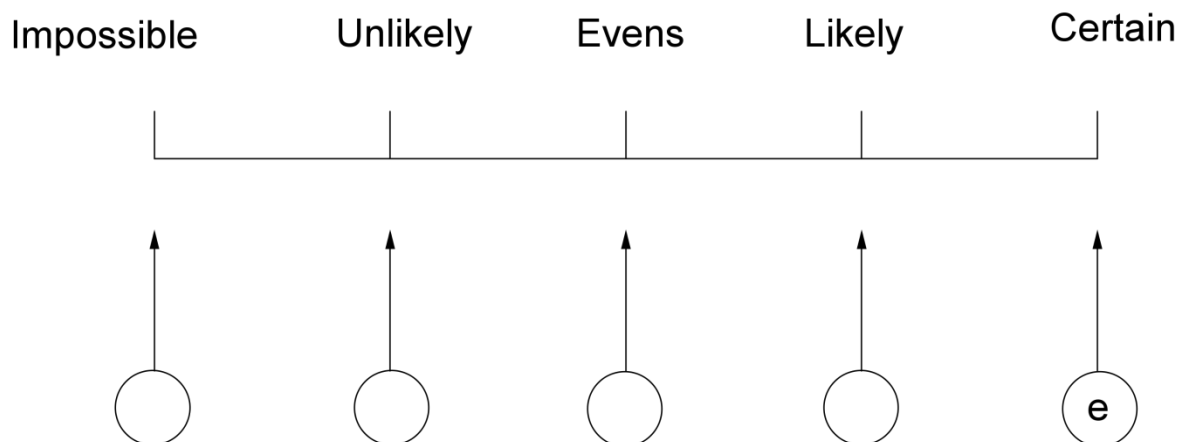
8. Look at the six cards below. Each card has a number on it.



Colin takes a card without looking. Now look at the statements below.

- The card chosen is an odd number.
- The card chosen is a square number.
- The card chosen is an odd number **and** a square number.
- The card chosen is a prime number.
- The card chosen is less than 100.

Match each statement to a probability by putting one letter into each circle in the diagram below. The letter has already been put in the correct place for you.



9. A map has the following scale:

1 centimetre represents 3 kilometres.

On the map, the distance between my house and my school is 4.5 cm. What is the actual distance from my house to the school?

_____ km



10. Ten caterpillars each weigh 0.98 grams. Each caterpillar eats its own body-weight in food every day. Roughly how much food will the caterpillars have eaten in 10 days? Tick one box below.

- 10 g
- 100 g
- 1 kg
- 10 kg
-

11. In my class at school, 25% of the pupils play the recorder, $\frac{1}{7}$ of the pupils play the piano and the rest do not play a musical instrument. If 4 people play the piano, how many pupils are there in the class? Write your answer in the space below.

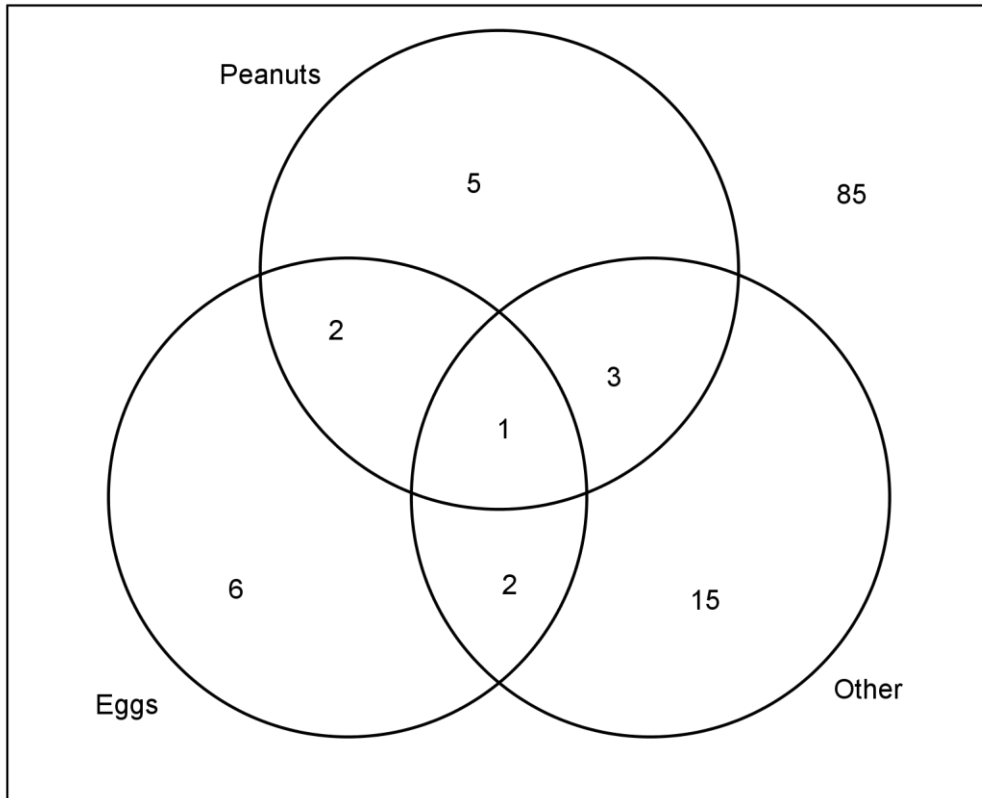
12. How many people do not play an instrument? Write your answer in the space below.

13. Complete the table below by filling in the 3 blank boxes.

| | | | | |
|------------|------|-----|-----|-------------------|
| Percentage | 100% | 75% | | $33\frac{1}{3}\%$ |
| Decimal | 1.0 | | 0.5 | |



14. Scott does a survey about **allergies**. He asks all of the pupils at his school whether they are allergic to anything. The results are shown in the Venn diagram below.

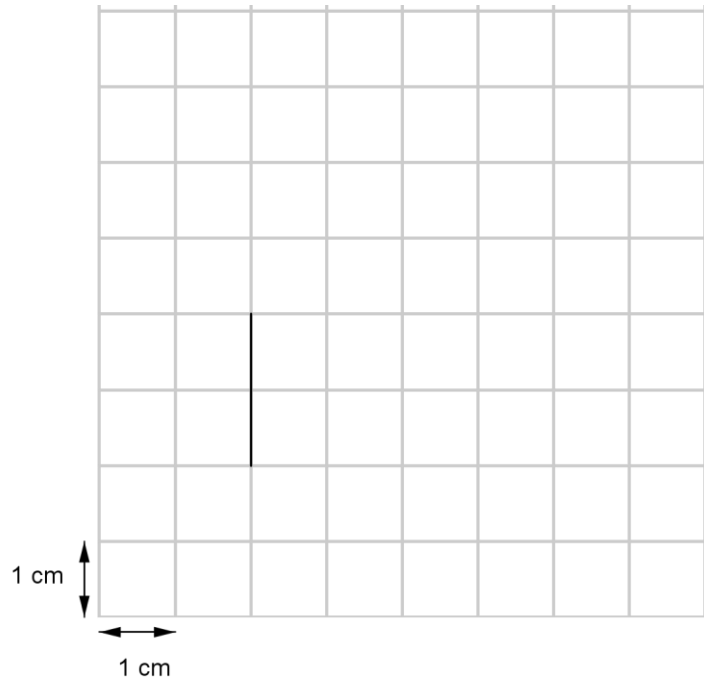


How many of the pupils in Scott's school are allergic to **peanuts and something else**, but not eggs? Write your answer in the space below.

15. The Smith family eat a lot of breakfast cereal. In the cupboard at the moment there are $5\frac{2}{3}$ boxes of cereal. Each day, the family eats $\frac{1}{3}$ of a box of cereal. How many days will their boxes last? Write your answer in the space below.

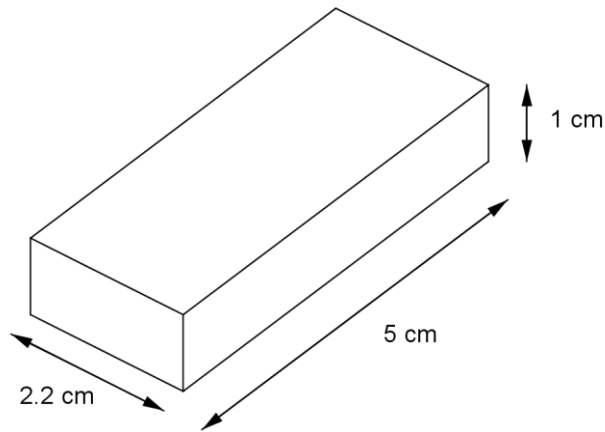


16. Look at the grid below. It is made up of small squares. The side of each square is 1 cm long.



A line is drawn on the grid. This line is **one side** of a **rectangle** with an area of 7 cm^2 . Draw the other **three sides** of the rectangle on the diagram.

17. The cuboid below has a length of 5 cm, a width of 2.2 cm and a height of 1 cm.



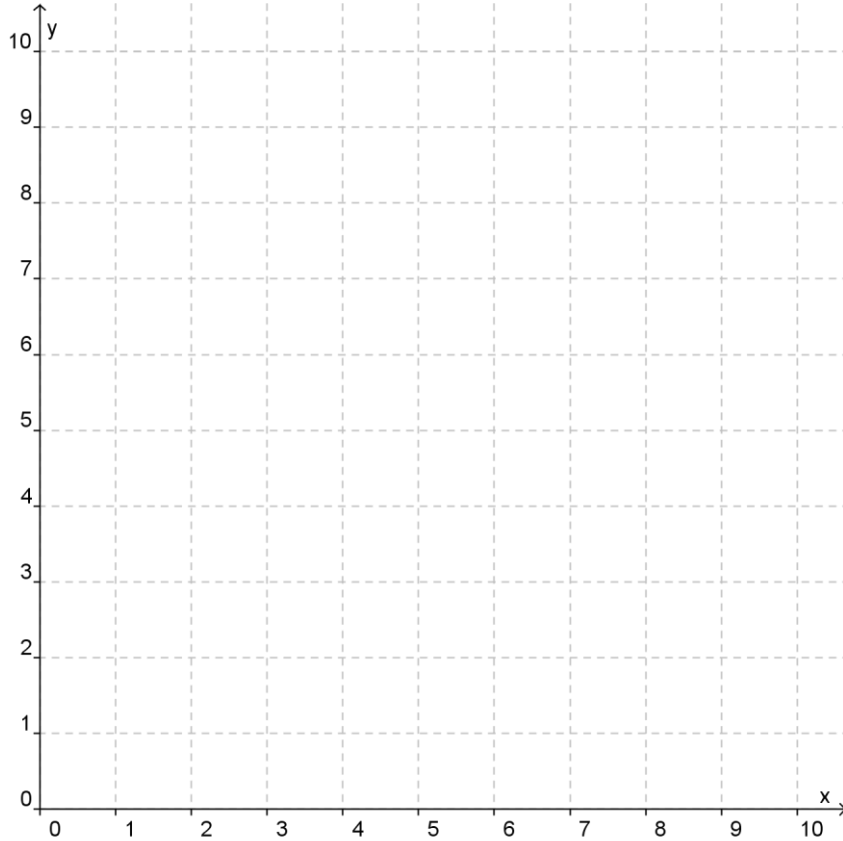
What is the **area of the largest face** of this cuboid? Write your answer in the space below.

_____ cm^2



18. In this question, you **may** use the grid below to plot the following points.

- a. (10, 9), (6, 9), (6, 5) and (10, 5)
- b. (8, 4), (7, 2), (8, 0) and (9, 2)
- c. (4, 1), (4, 9), (3, 7) and (3, 1)



Now complete the following statements using one of these words:

square, rectangle, rhombus, trapezium, kite

The first one has been done for you.

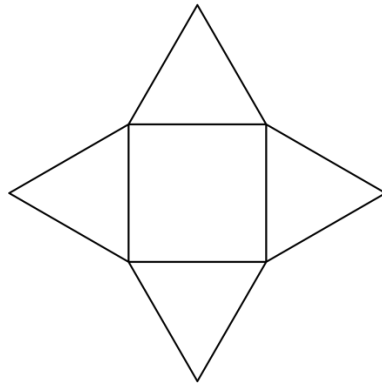
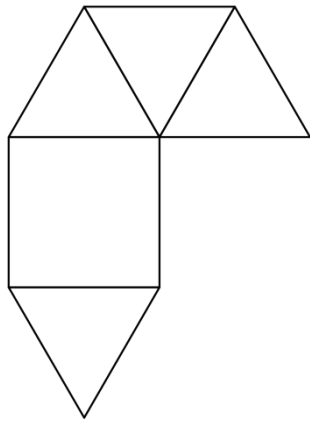
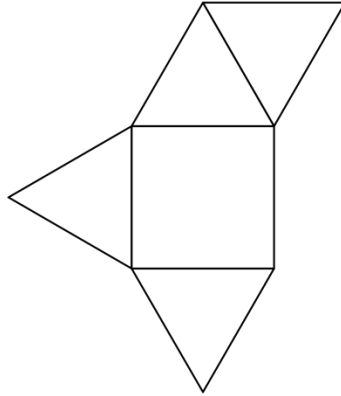
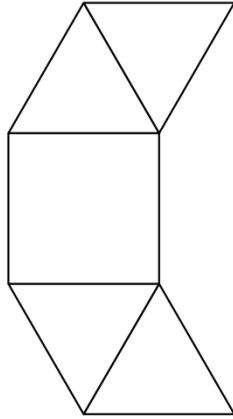
The points (10, 9), (6, 9), (6, 5) and (10, 5) join to make a **square**.

The points (8, 4), (7, 2), (8, 0) and (9, 2) join to make a _____.

The points (4, 1), (4, 9), (3, 7) and (3, 1) join to make a _____.



19. Look at the four shapes below. **Two** of them could be the nets of a **square-based pyramid**. Circle these two shapes.



20. Complete each number statement by writing the correct number in the space provided.

$\frac{2}{9}$ of 63 is _____

16 is $\frac{4}{9}$ of _____

