

## Week 3

### This week in a nutshell:

This week Q1 and Q5 both cover a skill involving percentages. Guide students to combine these two skills and make a visual link between percentages and fractions. Encourage students to list factors in pairs before writing them in ascending order. Note that later in the week Q4 moves on from finding the area of a single shape to areas of compound shapes.

**Question 1:** Writing a percentage as a fraction

**Question 2:** Listing factors

**Question 3:** Rounding

**Question 4:** Calculating area

**Question 5:** Estimating percentages (visually)

### This week's ideas for class discussion include:

Question 1: **Writing a percentage as a fraction**

- **Task:** Using circles, draw some visual representations of fractions and percentages. For example, cut a circle into 4 pieces using pencil lines. Then label each piece as one quarter and 25%.

Question 2: **Listing factors**

- “If  $x$  is a multiple of  $y$ , then  $y$  is a factor of  $x$ ”. Verify this statement by using some numerical examples. Discuss the relationship between multiples and factors.

Question 3: **Rounding**

- **Why do you think the digit 5 rounds up? Think about how many digits there are?**

Question 4: **Calculating area**

- **Task:** Note down the formulas for the area of rectangles, triangles, parallelograms and trapeziums. In pairs test each other at recalling a formula at random.

Question 5: **Estimating percentages (visually)**

- **Simon says** “When estimating percentages visually I compare the shaded area to percentages I know well like 50%, 25% and 10%”. **Tia says** “I think about how many times the shaded area would fit into the whole shape and then divide 100% by this number”. Discuss these methods for estimating.

## Week 3: Day 1

- 1) Write the percentage as a fraction in its simplest form

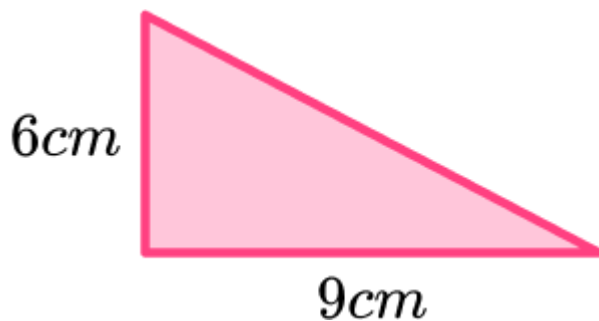
$$70\% =$$


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- 2) List the factors of 16 in ascending order.
- 

- 3) Round 34.72 to the nearest integer.
- 

- 4) Calculate the area of this right-angled triangle.



- 5) Estimate the percentage of the square that has been shaded.



## Week 3: Day 1 Answers

- 1) Write the percentage as a fraction in its simplest form.

$$70\% = \frac{7}{10}$$

- 2) List the factors of 16 in ascending order.

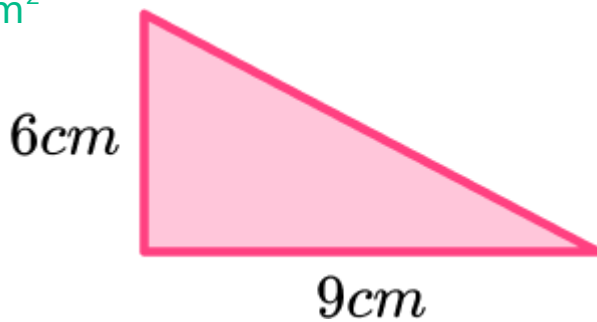
1, 2, 4, 8, 16

- 3) Round 34.72 to the nearest integer.

35

- 4) Calculate the area of this right-angled triangle.

27cm<sup>2</sup>



- 5) Estimate the percentage of the square that has been shaded.

~20%



## Week 3: Day 2

- 1) Write the percentage as a fraction in its simplest form

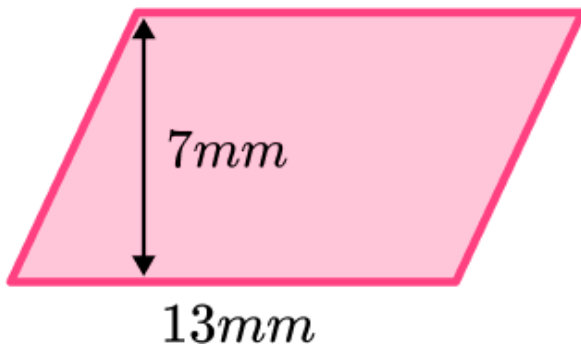
$$40\% =$$


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- 2) List the factors of 28 in ascending order.
- 

- 3) Round 3285 to the nearest ten.
- 

- 4) Calculate the area of this parallelogram



- 5) Estimate the percentage of the square that has been shaded.



## Week 3: Day 2 Answers

- 1) Write the percentage as a fraction in its simplest form

$$40\% = \frac{2}{5}$$

- 2) List the factors of 28 in ascending order.

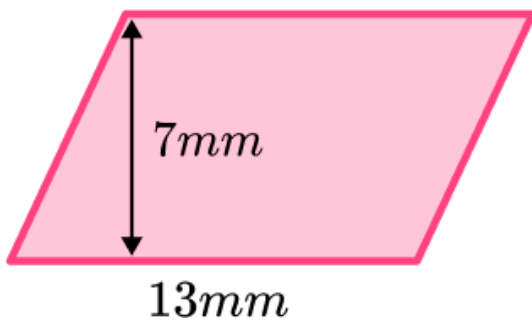
1, 2, 4, 7, 14, 28

- 3) Round 3285 to the nearest ten.

3290

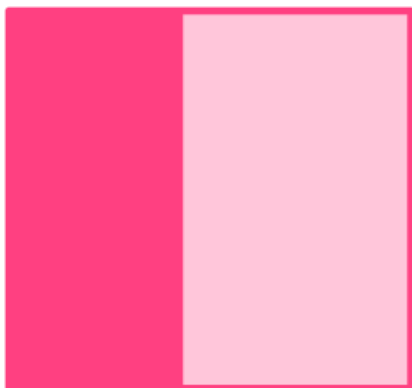
- 4) Calculate the area of this parallelogram.

91mm<sup>2</sup>



- 5) Estimate the percentage of the square that has been shaded.

~40%



## Week 3: Day 3

- 1) Write the percentage as a fraction in its simplest form

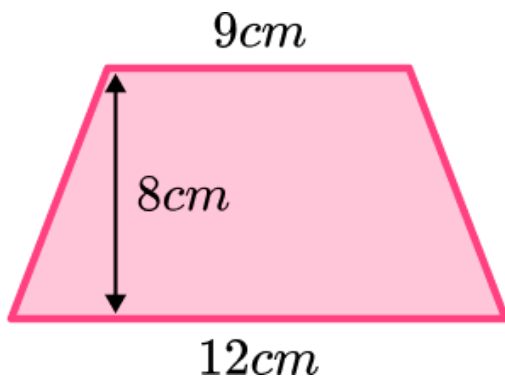
$$15\% =$$


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- 2) List the factors of 99 in ascending order.
- 

- 3) Round 58448 to the nearest hundred.
- 

- 4) Calculate the area of this trapezium.



- 5) Estimate the percentage of the square that has been shaded.



## Week 3: Day 3 Answers

- 1) Write the percentage as a fraction in its simplest form

$$15\% = \frac{3}{20}$$

- 2) List the factors of 99 in ascending order.

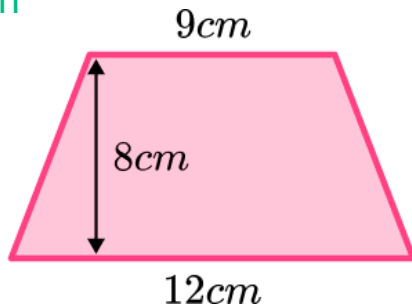
1, 3, 9, 11, 33, 99

- 3) Round 58448 to the nearest hundred.

58400

- 4) Calculate the area of this trapezium.

84cm<sup>2</sup>



- 5) Estimate the percentage of the square that has been shaded.



~60%

## Week 3: Day 4

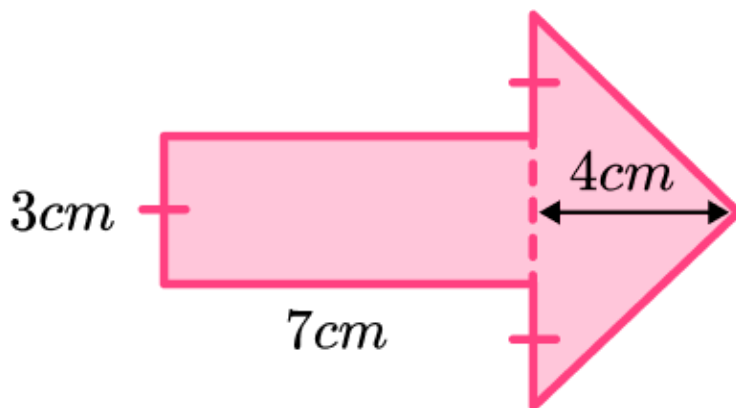
- 1) Write the percentage as a fraction in its simplest form

$$24\% =$$

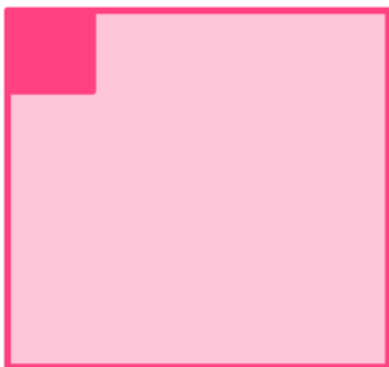
- 2) List the factors of 38 in ascending order.

- 3) Round 5.55 to one decimal place.

- 4) Calculate the area of this shape.



- 5) Estimate the percentage of the square that has been shaded.





## Week 3: Day 4 Answers

- 1) Write the percentage as a fraction in its simplest form

$$24\% = \frac{6}{25}$$

- 2) List the factors of 38 in ascending order.

1, 2, 19, 38

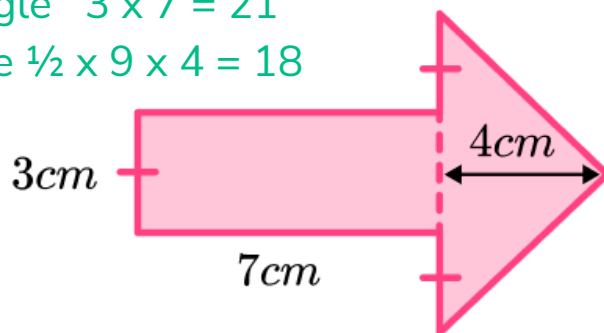
- 3) Round 5.55 to one decimal place.

5.6

- 4) Calculate the area of this shape.  $39\text{cm}^2$

Rectangle  $3 \times 7 = 21$

Triangle  $\frac{1}{2} \times 9 \times 4 = 18$



- 5) Estimate the percentage of the square that has been shaded.

~5%



## Week 3: Day 5

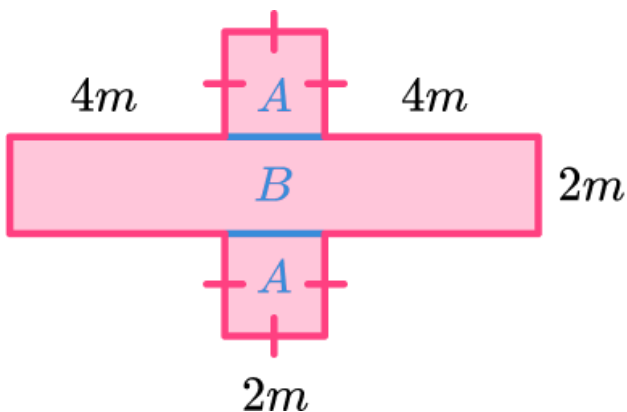
- 1) Write the percentage as a fraction in its simplest form

$$85\% =$$

- 2) List the factors of 130 in ascending order.

- 3) Round 0.97393 to two decimal places.

- 4) Calculate the area of this shape.



- 5) Estimate the percentage of the square that has been shaded.



## Week 3: Day 5 Answers

- 1) Write the percentage as a fraction in its simplest form

$$85\% = \frac{17}{20}$$

- 2) List the factors of 130 in ascending order.

1, 2, 5, 10, 13, 26, 65, 130

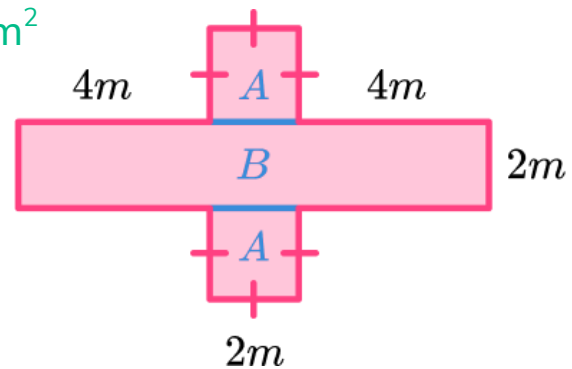
- 3) Round 0.97393 to two decimal places.

0.97

- 4) Calculate the area of this shape.  $28m^2$

$$\text{Area A} = 2 \times 2$$

$$\text{Area B} = 10 \times 2$$



- 5) Estimate the percentage of the square that has been shaded.



~60%

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