

Week 1

This week in a nutshell:

The summer term begins with familiar skills in questions 1, 2 and 3. A reminder of what is meant by perimeter may be required for question 4. A maths glossary, or access to class notes, may be necessary for question 5 (the understanding and recognition of circle terminology is more important than spelling correctly at this stage).

Question 1: Writing a decimal number as a fraction

Question 2: Multiplying and dividing with powers of 10

Question 3: Simplifying algebraic expressions

Question 4: Using perimeter to find missing lengths

Question 5: Circle terminology

The questions aim to develop and deepen understanding over the week. Due to the necessity of the topics covered this week, there is an emphasis on the interchangeability of command words, and language flexibility. It may be worth taking some extra time this week to make sure your students are developing their mathematical literacy.

This week's ideas for class discussion include:

Question 1: **Writing a decimal number as a fraction**

- After converting a decimal to a fraction, is it always helpful to simplify the fraction?

Question 2: **Multiplying and dividing with powers of 10**

- In what ways is it useful to have a number written as a power of ten in a calculation?

Question 3: **Simplifying algebraic expressions**

- What are the answers to " $a + a$ " and " $a \times a$ "? Discuss how this distinction is important to remember to avoid making mistakes when simplifying expressions.

Question 4: **Using perimeter to find missing lengths**

- How are sides of equal length indicated on a diagram?

Question 5: **Circle terminology**

- Can you think of any mnemonics to remember the names of parts of a circle?

Week 1: Day 1

1) Write 0.6 as a fraction in its simplest terms.

2) Evaluate:

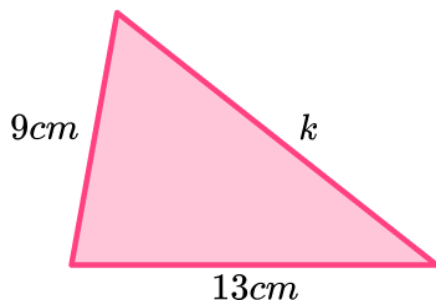
a) $3.2 \times 100 =$

b) $6000 \div 10 =$

3 Simplify:

$$5a + 2b - 3a + b$$

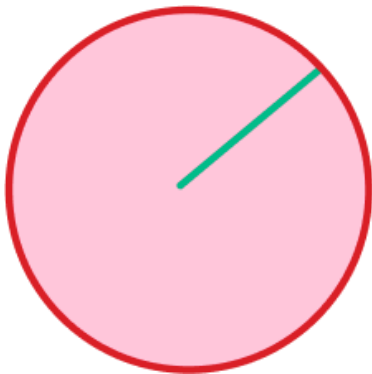
4) Given that the perimeter of this triangle is 36cm , find the length of side k .



5) Name the part of the circle coloured,

a) Red

b) Green



Week 1: Day 1 Answers

1) Write 0.6 as a fraction in its simplest terms. $\frac{3}{5}$

2) Evaluate:

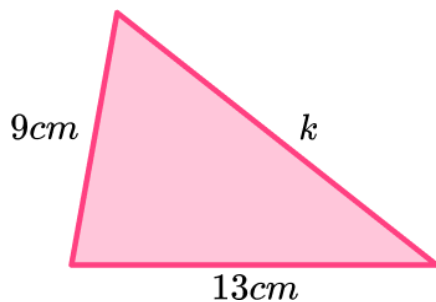
a) $3.2 \times 100 = 320$

b) $6000 \div 10 = 600$

3 Simplify:

$$5a + 2b - 3a + b = 2a + 3b$$

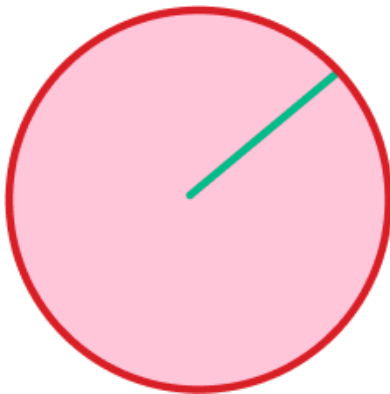
4) Given that the perimeter of this triangle is 36cm , find the length of side k . 14cm



5) Name the part of the circle coloured,

c) Red **circumference**

d) Green **radius**



Week 1: Day 2

1) Write 0.8 as a fraction in its simplest terms.

2) Evaluate:

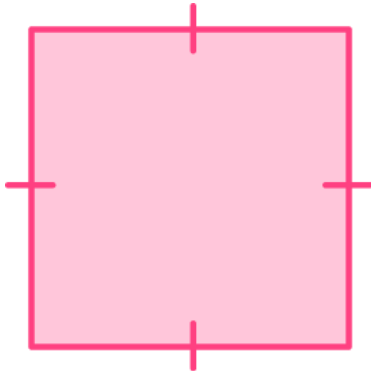
a) $7 \times 10^4 =$

b) $12500 \div 1000 =$

3) Simplify:

$$3c + d + c - 4d$$

4) The perimeter of this square is 34cm . What is the length of each side?



5) Name the part of the circle coloured yellow.



Week 1: Day 2 Answers

- 1) Write 0.8 as a fraction in its simplest terms.

$$\frac{4}{5}$$

- 2) Evaluate:

a) $7 \times 10^4 = 70000$

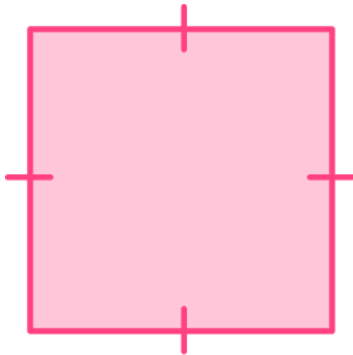
b) $12500 \div 1000 = 12.5$

- 3) Simplify:

$$3c + d + c - 4d = 4c - 3d$$

- 4) The perimeter of this square is 34cm . What is the length of each side?

8.5cm



- 5) Name the part of the circle coloured yellow. (minor) sector



Week 1: Day 3

1) Write 0.375 as a fraction in its simplest terms.

2) Evaluate:

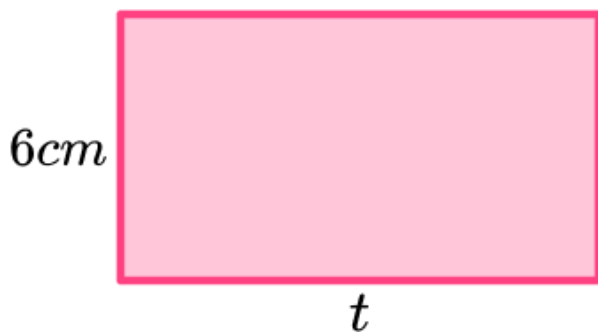
a) $0.8 \times 1000 =$

b) $863 \div 100 =$

3) Simplify:

$$\frac{5a+2a-4a}{3a} =$$

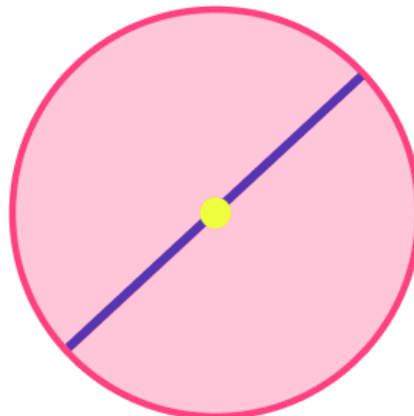
4) Given that the perimeter of this rectangle is 38cm , what is the length of side t ?



5) Name the part of the circle coloured,

a) Yellow

b) Purple



Week 1: Day 3 Answers

- 1) Write 0.375 as a fraction in its simplest terms. $\frac{3}{8}$

- 2) Evaluate:

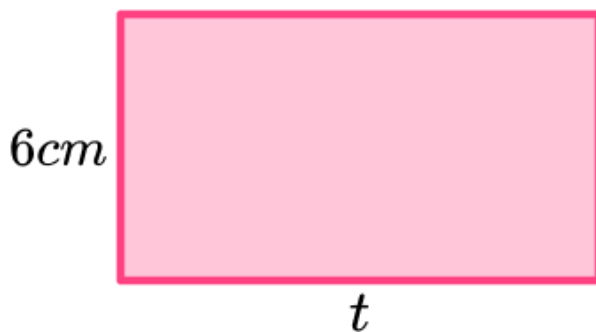
c) $0.8 \times 1000 = 800$

d) $863 \div 100 = 8.63$

- 3) Simplify:

$$\frac{5a+2a-4a}{3a} = 1$$

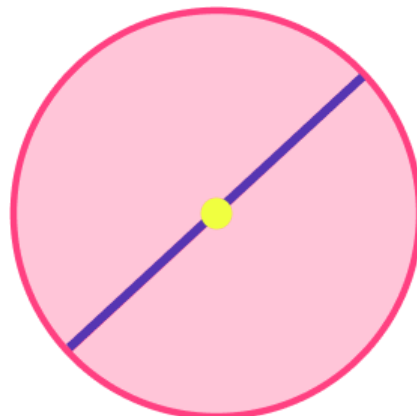
- 4) Given that the perimeter of this rectangle is 38cm , what is the length of side t ? 16cm



- 5) Name the part of the circle coloured,

c) Yellow **centre**

d) Purple **diameter**



Week 1: Day 4

1) Write 0.105 as a fraction in its simplest terms.

2) Evaluate:

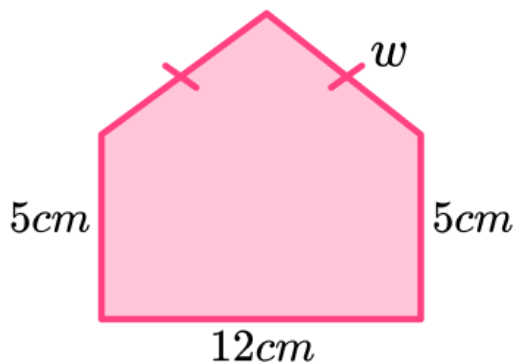
a) $12 \times 100 =$

b) $87 \div 10^3 =$

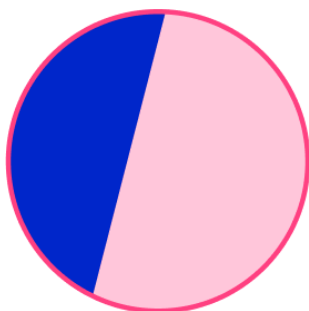
3) Simplify:

$$5n \times 2m \times 3$$

4) Given that the perimeter of this shape is 36cm, what is the length of side w ?



5) Name the part of the circle coloured blue.



Week 1: Day 4 Answers

1) Write 0.105 as a fraction in its simplest terms. $\frac{21}{200}$

2) Evaluate:

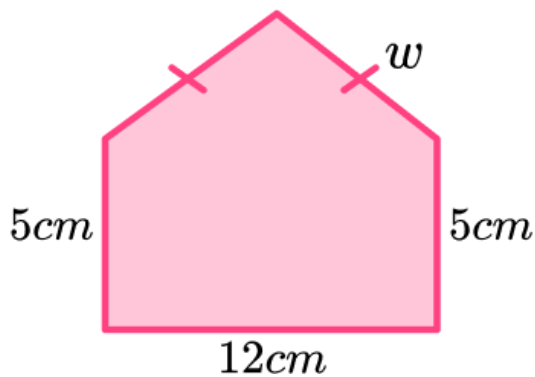
c) $12 \times 100 = 1200$

d) $87 \div 10^3 = 0.087$

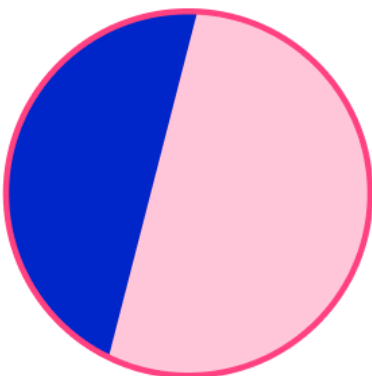
3) Simplify:

$$5n \times 2m \times 3 = 30mn$$

4) Given that the perimeter of this shape is 36cm, what is the length of side w ? $7cm$



5) Name the part of the circle coloured blue. (minor) segment



Week 1: Day 5

1) Write 0.14 as a fraction in its simplest terms.

2) Evaluate:

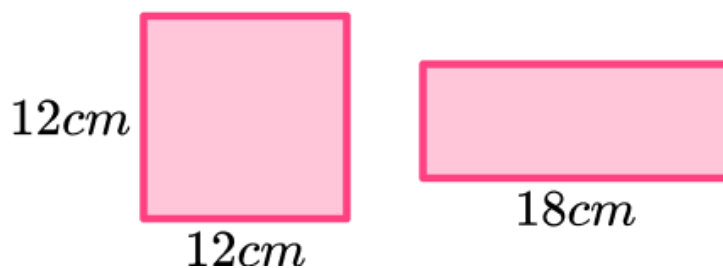
a) $0.104 \times 10^2 =$

b) $34700 \div 10^3 =$

3) Simplify:

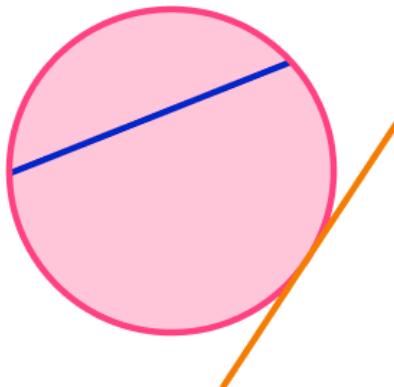
$$4a \times 3a$$

4) The square and rectangle have the same perimeter. What is the height of the rectangle?



5) Name the part of the circle coloured,

- a) Blue
- b) Orange



Week 1: Day 5 Answers

1) Write 0.14 as a fraction in its simplest terms. $\frac{7}{50}$

2) Evaluate:

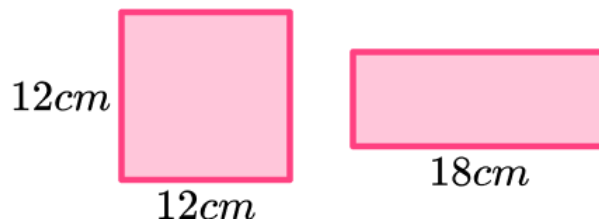
c) $0.104 \times 10^2 = 10.4$

d) $34700 \div 10^3 = 34.7$

3) Simplify:

$$4a \times 3a = 12a^2$$

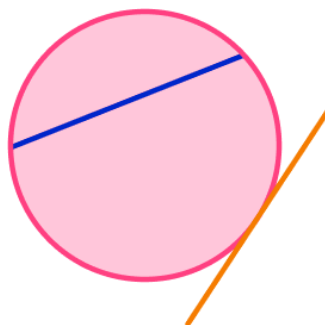
4) The square and rectangle have the same perimeter. What is the height of the rectangle? $6cm$



5) Name the part of the circle coloured,

c) Blue chord

d) Orange tangent



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