

Week 4

This week in a nutshell:

The ability to fluidly move between representations of number is highly useful, as seen here in question 1. Question 4 involves the idea of generalisation, the uses of which could be discussed (especially with high attainers). Strategies for question 5 come in many forms, and it is worth talking to students about the efficiency of these methods.

Question 1: Fractions and decimals

Question 2: Multiplicity using words

Question 3: Understanding coordinates

Question 4: Generalising area and perimeter

Question 5: Ratio equivalence (odd one out)

This week's ideas for class discussion include:

Question 1: **Fractions and decimals**

- Why is it necessary to be able to move between representations of number?

Question 2: **Multiplicity using words**

- Why is using words as important as using symbols in maths?

Question 3: **Understanding coordinates**

- Coordinates describe a location. How else could we describe the location of a point?

Question 4: **Generalising area and perimeter**

- Why is it important to generalise?

Question 5: **Ratio equivalence (odd one out)**

- What helps determine equivalence in ratios?

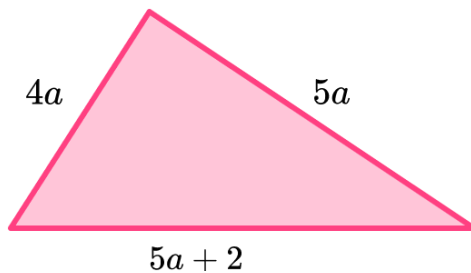
Week 4: Day 1

1) Express $\frac{3}{4}$ as a decimal.

2) What is 15 doubled?

3) What is the horizontal distance between the points (3, 5) and (1, 7)?

4) Write an expression that represents the perimeter of this triangle.



5) Which ratio is not equivalent to the others.

4 : 6

12 : 18

6 : 8

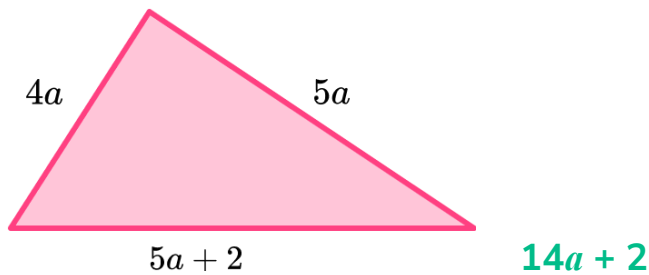
Week 4: Day 1 Answers

1) Express $\frac{3}{4}$ as a decimal. **0.75**

2) What is 15 doubled? **30**

3) What is the horizontal distance between the points (3, 5) and (1, 7)? **2**

4) Write an expression that represents the perimeter of this triangle.



5) Which ratio is not equivalent to the others.

4 : 6

12 : 18

6 : 8

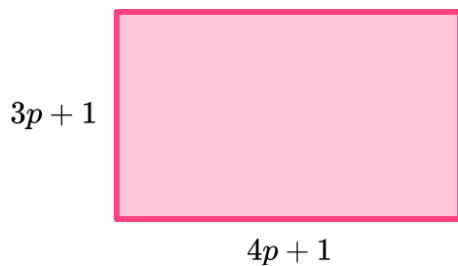
Week 4: Day 2

1) Express 0.7 as a fraction.

2) What is 12 tripled?

3) What is the vertical distance between the points (3, 5) and (1, 5)?

4) Write an expression for the perimeter of this rectangle.



5) Which ratio is not equivalent to the others.

2 : 5

1 : 4

3 : 12

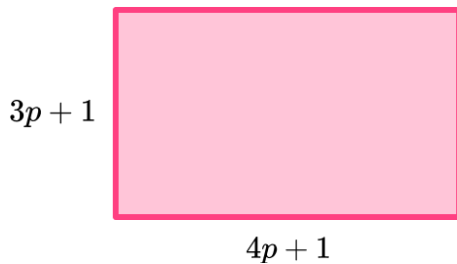
Week 4: Day 2 Answers

1) Express 0.7 as a fraction. $\frac{7}{10}$

2) What is 12 tripled? 36

3) What is the vertical distance between the points (3, 5) and (1, 5)? 0

4) Write an expression for the perimeter of this rectangle. $14p + 4$



5) Which ratio is not equivalent to the others.

2 : 5

1 : 4

3 : 12

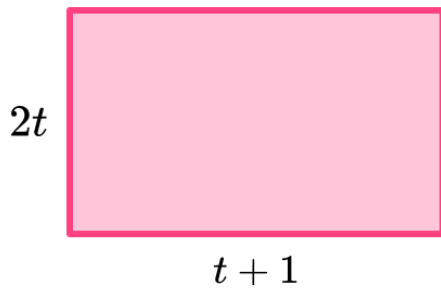
Week 4: Day 3

1) Express $\frac{4}{5}$ as a decimal.

2) What is half of 36?

3) What is the horizontal distance between the points $(-2, 4)$ and $(1, 3)$?

4) Write an expression for the area of this rectangle.



5) Which ratio is not equivalent to the others.

9 : 6

18 : 12

12 : 9

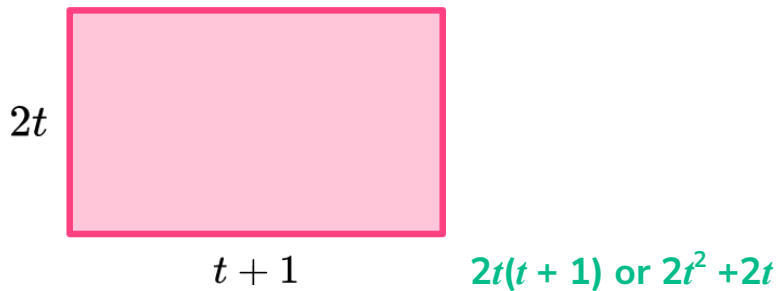
Week 4: Day 3 Answers

1) Express $\frac{4}{5}$ as a decimal. **0.8**

2) What is half of 36? **18**

3) What is the horizontal distance between the points $(-2, 4)$ and $(1, 3)$? **3**

4) Write an expression for the area of this rectangle.



5) Which ratio is not equivalent to the others.

9 : 6

18 : 12

12 : 9

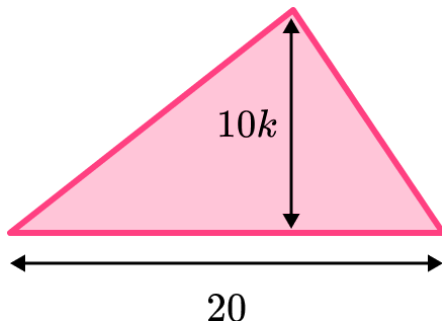
Week 4: Day 4

1) Express 0.6 as a fraction in its simplest form.

2) What is a third of 24?

3) What is the horizontal distance between the points $(-2.5, 2.5)$ and $(2.5, -2.5)$?

4) Express the area of this triangle in terms of k .



5) Which ratio is not equivalent to the others.

15 : 6

10 : 3

20 : 8

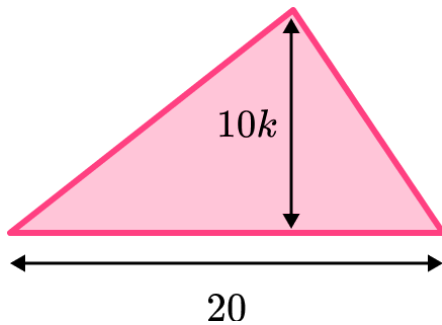
Week 4: Day 4 Answers

1) Express 0.6 as a fraction in its simplest form. $\frac{4}{5}$

2) What is a third of 24? 8

3) What is the horizontal distance between the points $(-2.5, 2.5)$ and $(2.5, -2.5)$? 5

4) Express the area of this triangle in terms of k . $100k$



5) Which ratio is not equivalent to the others.

15 : 6

10 : 3

20 : 8

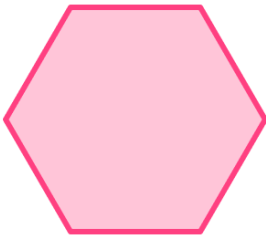
Week 4: Day 5

1) Express 0.65 as a fraction in its simplest form.

2) What do you get if you quadruple 7?

3) What is the vertical distance between the points (0, -4) and (1, 3)?

4) This regular hexagon has a perimeter of $72w$. What is the length of one side?



5) Which ratio is not equivalent to the others.

4 : 8 : 12

2 : 3 : 4

3 : 6 : 9

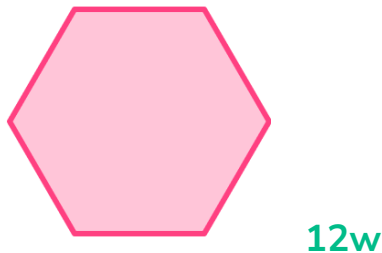
Week 4: Day 5 Answers

1) Express 0.65 as a fraction in its simplest form. $\frac{13}{20}$

2) What do you get if you quadruple 7? 28

3) What is the vertical distance between the points (0, -4) and (1, 3)? 7

4) This regular hexagon has a perimeter of $72w$. What is the length of one side?



5) Which ratio is not equivalent to the others.

4 : 8 : 12

2 : 3 : 4

3 : 6 : 9

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