

Week 6

This week in a nutshell:

The current focus is perimeter, but we also look at important topics previously seen. Identity and its true mathematical meaning is explored and can lead to a discussion on the definitions of equality and identity. Questions on perimeter build on previous weeks to include algebra and forming expressions.

Question 1: Converting metric units

Question 2: Identity

Question 3: Decimals and place value

Question 4: Using perimeter to find a missing length

Question 5: Forming expressions for perimeter

This week's ideas for class discussion include:

Question 1: **Converting metric units**

- Why might it be necessary/useful to convert to a different unit?
- Does changing units affect the result of any calculation?

Question 2: **Identity**

- How do we check for identity?

Question 3: **Decimals and place value**

- Why is it important to be able to move between numbers as words and number as figures?

Question 4: **Using perimeter to find a missing length**

- Why might we need to find a missing length?

Question 5: **Forming expressions for perimeter**

- How does forming an expression for a physical property allow to make general statements?

Week 6: Day 1

- 1) Make this unit conversion correct:

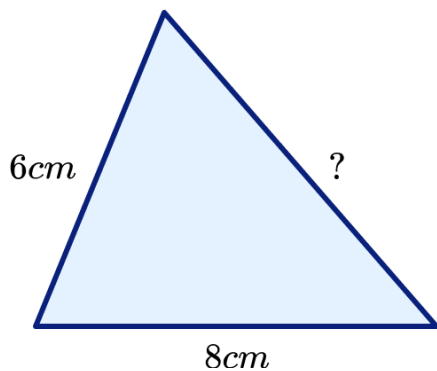
$$3.5\text{cm} = \underline{\hspace{1cm}} \text{mm}$$

- 2) True or false?

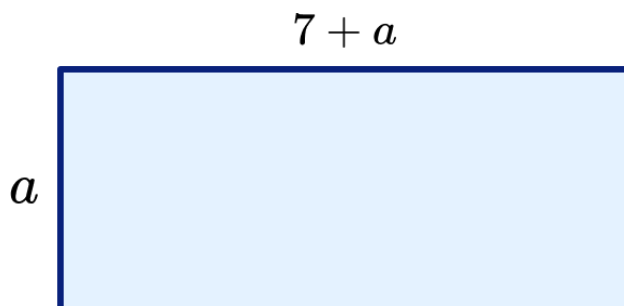
$$3x + 6 \equiv 3(x + 2)$$

- 3) Write using figures: Three tenths

- 4) The perimeter of this triangle is 23cm. Find the missing side length.



- 5) Write an expression that represents the perimeter of this rectangle.



Week 6: Day 1 Answers

- 1) Make this unit conversion correct:

$$3.5\text{cm} = 35\text{mm}$$

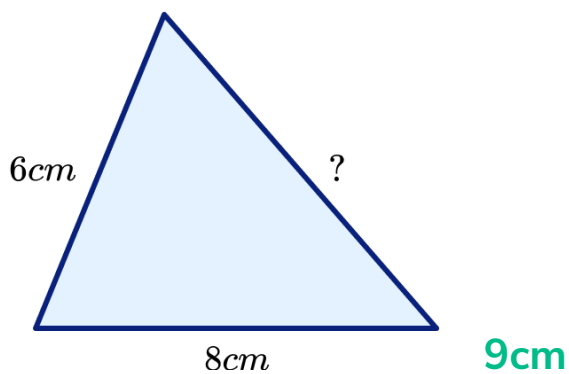
- 2) True or false? **true**

$$3x + 6 \equiv 3(x + 2)$$

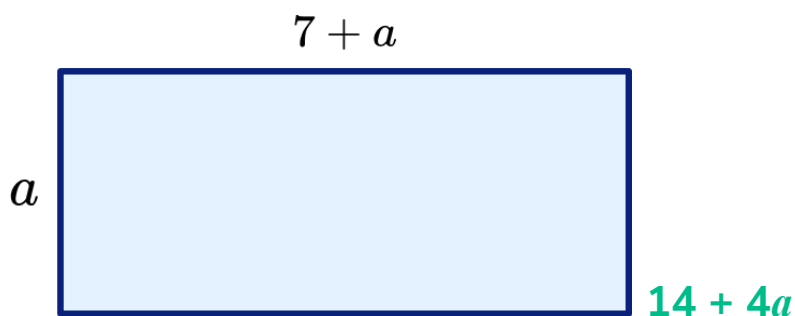
- 3) Write using figures: Three tenths

0.3

- 4) The perimeter of this triangle is 23cm. Find the missing side length.



- 5) Write an expression that represents the perimeter of this rectangle.



Week 6: Day 2

- 1) Make this unit conversion correct:

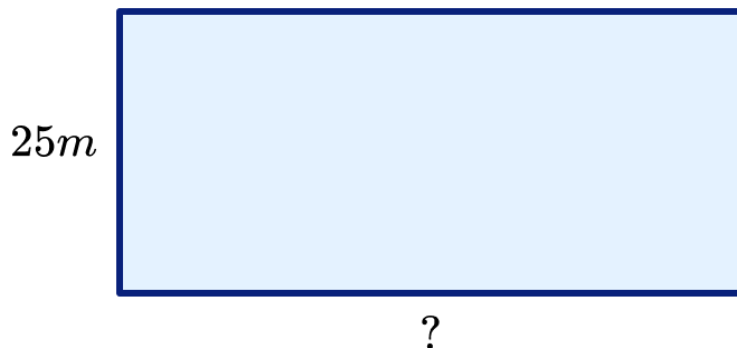
$$1.65\text{m} = \underline{\hspace{1cm}}\text{cm}$$

- 2) True or false?

$$2x + 6x - 8 \equiv x$$

- 3) Write using figures: Thirty five hundredths

- 4) This rectangle has a perimeter of 170m. What is the missing side length?



- 5) Write an expression that represents the perimeter of this square.



Week 6: Day 2 Answers

- 1) Make this unit conversion correct:

$$1.65\text{m} = 165\text{cm}$$

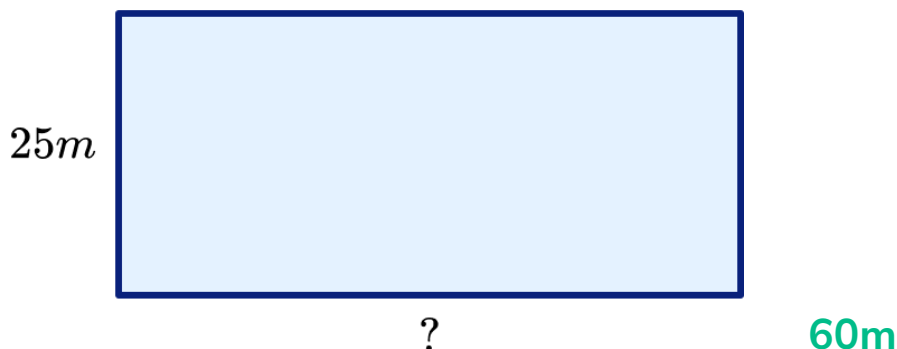
- 2) True or false? **false**

$$2x + 6x - 8 \equiv x$$

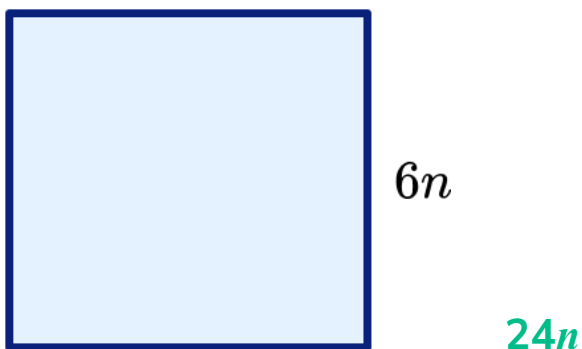
- 3) Write using figures: Thirty five hundredths

0.35

- 4) This rectangle has a perimeter of 170m. What is the missing side length?



- 5) Write an expression that represents the perimeter of this square.



Week 6: Day 3

- 1) Make this unit conversion correct:

$$2508\text{mm} = \underline{\hspace{1cm}}\text{m}$$

- 2) True or false?

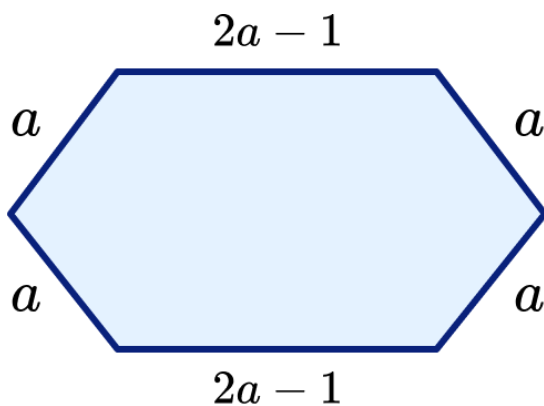
$$4(2x + 3) \equiv 6x + 7$$

- 3) Write using figures: Twelve hundredths

- 4) This square has a perimeter of 36mm. What is the length of one side?



- 5) Write an expression that represents the perimeter of this shape.



Week 6: Day 3 Answers

- 1) Make this unit conversion correct:

$$2508\text{mm} = 2.508\text{m}$$

- 2) True or false? **false**

$$4(2x + 3) \equiv 6x + 7$$

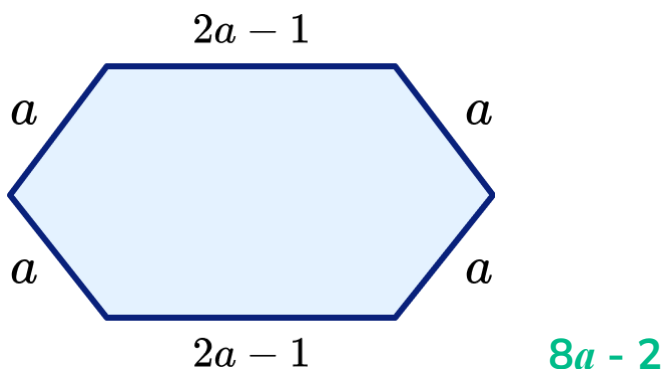
- 3) Write using figures: Twelve hundredths

0.12

- 4) This square has a perimeter of 36mm. What is the length of one side?



- 5) Write an expression that represents the perimeter of this shape.



Week 6: Day 4

- 1) Make this unit conversion correct:

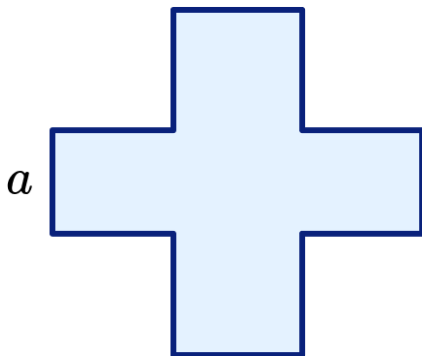
$$711\text{mm} = \underline{\hspace{1cm}}\text{cm}$$

- 2) True or false?

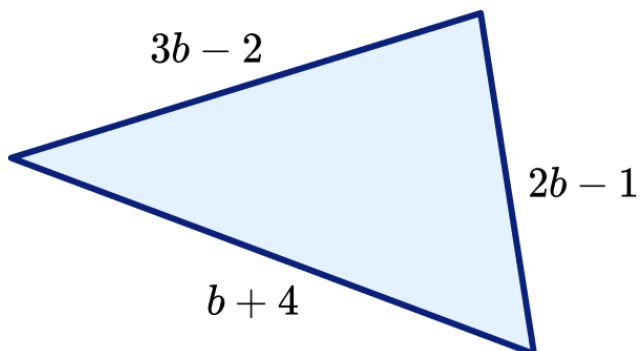
$$4y + 3y - 7y \equiv 0$$

- 3) Write using figures: Eight hundredths

- 4) This cross was made from five identical squares. The perimeter of the cross is 60cm. How long is side a ?



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



Week 6: Day 4 Answers

- 1) Make this unit conversion correct:

$$711\text{mm} = 71.1\text{cm}$$

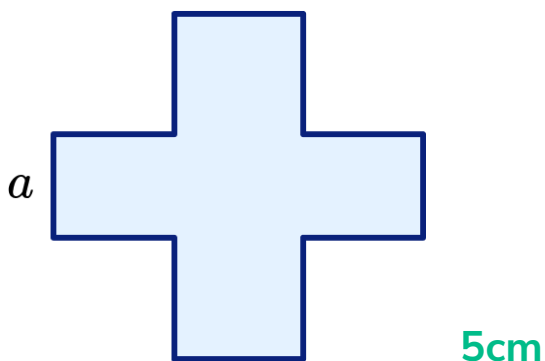
- 2) True or false? **true**

$$4y + 3y - 7y \equiv 0$$

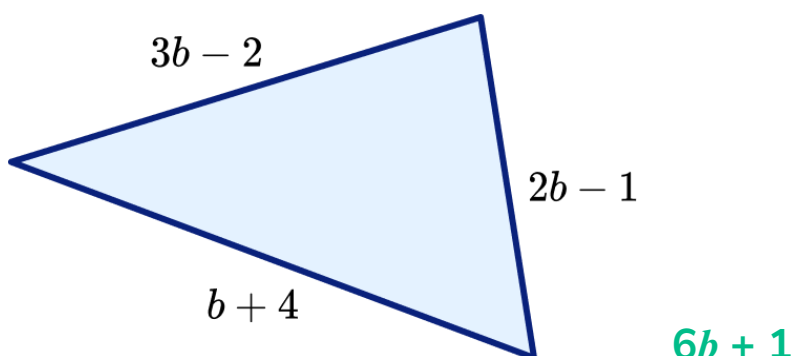
- 3) Write using figures: Eight hundredths

0.08

- 4) This cross was made from five identical squares. The perimeter of the cross is 60cm. How long is side a ?



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



Week 6: Day 5

- 1) Make this unit conversion correct:

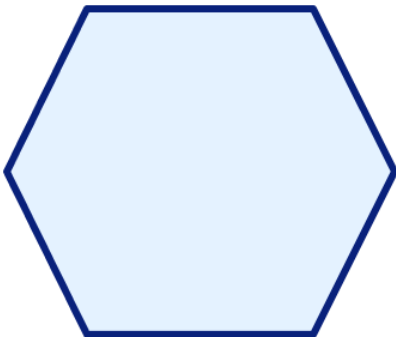
$$4.25\text{km} = \underline{\hspace{1cm}}\text{m}$$

- 2) True or false?

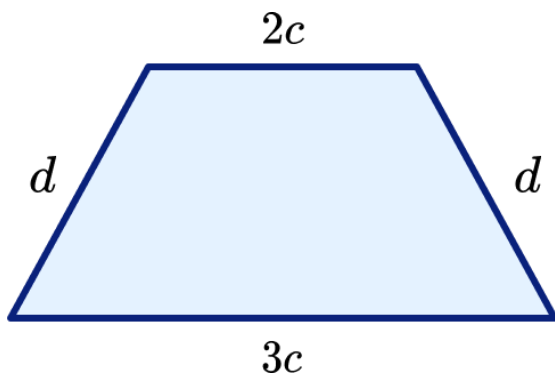
$$2x^2 + 6x \equiv 2x(x + 2)$$

- 3) Write using figures: Forty two thousandths
-

- 4) This regular hexagon has a perimeter longer than 50cm and shorter than 55cm. The side lengths are whole numbers. How long is one side?



- 5) Write an expression that represents the perimeter of this trapezium.



Week 6: Day 5 Answers

- 1) Make this unit conversion correct:

$$4.25\text{km} = 4250\text{m}$$

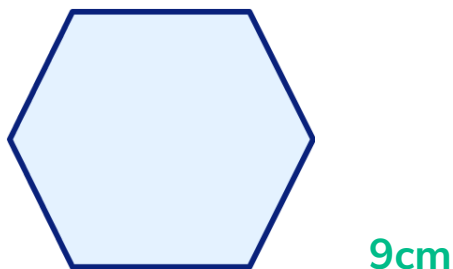
- 2) True or false? **False**

$$2x^2 + 6x \equiv 2x(x + 2)$$

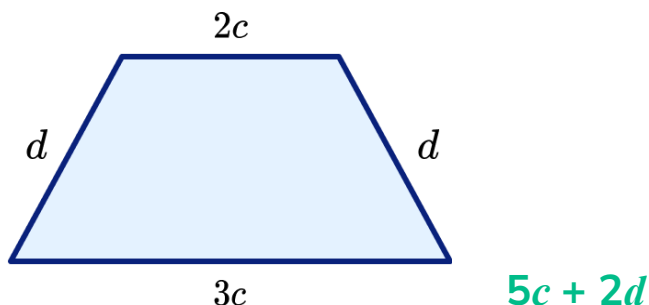
- 3) Write using figures: Forty two thousandths

0.042

- 4) This regular hexagon has a perimeter longer than 50cm and shorter than 55cm. The side lengths are whole numbers. How long is one side?



- 5) Write an expression that represents the perimeter of this trapezium.



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