

## Week 2

### This week in a nutshell:

This week's questions have been designed in such a way that calculators should not need to be used. Any amendments that some students require should not be disregarded, however handwritten methods should be emphasised. The aim is to build fluency with skills previously covered while introducing standard form.

**Question 1:** Handwritten calculations

**Question 2:** Using fractions

**Question 3:** Converting standard form to normal form

**Question 4:** Calculating area

**Question 5:** Identifying primes

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: Handwritten calculations**

- What's the minimum amount of writing needed for a calculation?
- How much space do you need for a handwritten calculation?

**Question 2: Using fractions**

- Are fractions a special kind of division, multiplication or both?

**Question 3: Converting standard form to normal form**

- Why call it "standard form"?
- Have you seen standard form in any other subjects?

**Question 4: Calculating area**

- Do we ever consider calculating the area outside a shape?

**Question 5: Identifying primes**

- How many quick checks for primes can you tell me?

## Week 2: Day 1

1) Calculate:

$$85 \times 7 =$$

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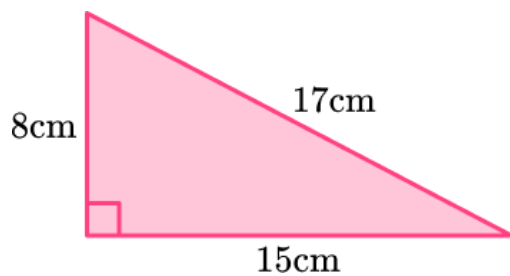
2) Write the fraction in its simplest form:  $\frac{72}{216}$

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3) Write in normal form:  $3 \times 10^2 =$

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4) Find the area of the triangle below.



5) Identify all the prime numbers:

15

23

29

## Week 2: Day 1 Answers

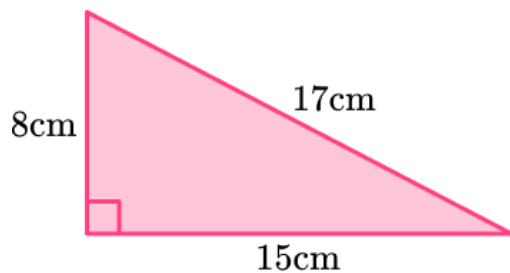
1) Calculate:

$$85 \times 7 = 595$$

2) Write the fraction in its simplest form:  $\frac{72}{216}$   $\frac{1}{3}$

3) Write in normal form:  $3 \times 10^2 = 300$

4) Find the area of the triangle below.  $60\text{cm}^2$



5) Identify all the prime numbers:

15

23

29

## Week 2: Day 2

1) Calculate:

$$2043 \div 9 =$$

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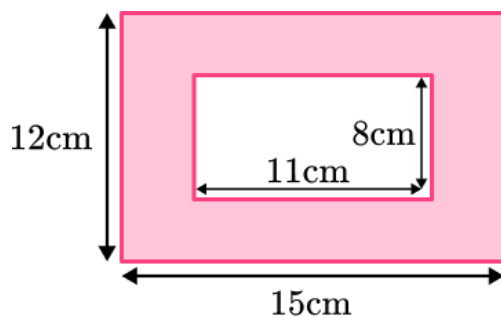
2) Write the improper fraction as a mixed number:  $\frac{54}{5}$

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3) Write in normal form:  $6 \times 10^{-3} =$

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4) Find the area of the rectangular frame below.



5) Identify all the prime numbers:

13

33

43

## Week 2: Day 2 Answers

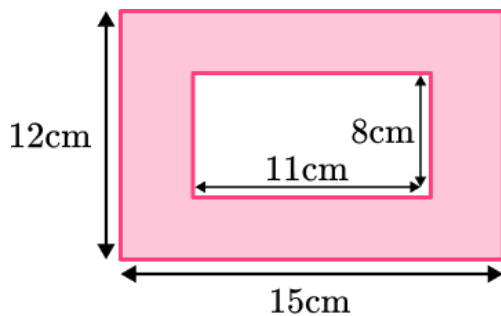
1) Calculate:

$$2043 \div 9 = 227$$

2) Write the improper fraction as a mixed number:  $\frac{54}{5}$   $10\frac{4}{5}$

3) Write in normal form:  $6 \times 10^{-3} = 0.006$

4) Find the area of the rectangular frame below.  $92\text{cm}^2$



5) Identify all the prime numbers:

13

33

43

## Week 2: Day 3

1) **Calculate:**  $239 + 878 =$

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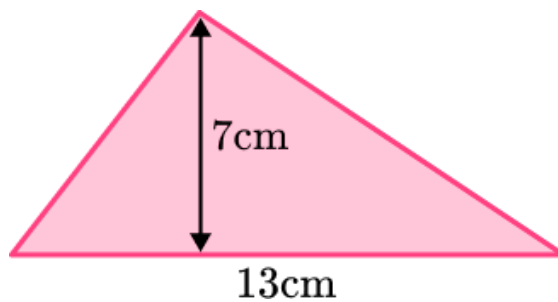
2) **Write the mixed number as an improper fraction:**  $3\frac{7}{8}$

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3) **Write in normal form:**  $8.4 \times 10^3 =$

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4) **Find the area of the triangle below.**



5) **Identify all the prime numbers:**

27

57

67

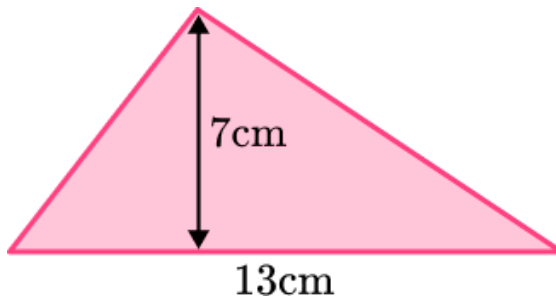
## Week 2: Day 3 Answers

1) Calculate:  $239 + 878 = 1117$

2) Write the mixed number as an improper fraction:  $3\frac{7}{8} = \frac{31}{8}$

3) Write in normal form:  $8.4 \times 10^3 = 8400$

4) Find the area of the triangle below.  $45.5\text{cm}^2$



5) Identify all the prime numbers:

27

57

67

## Week 2: Day 4

1) **Calculate:**  $5005 - 2688 =$

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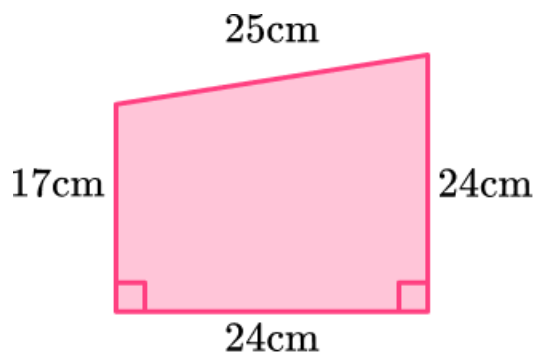
2) **Convert the decimal to a fraction in its simplest form:**  
 $0.48$

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3) **Write in normal form:**  $3.75 \times 10^{-7} =$

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4) **Find the area of the shape below.**



5) **Identify all the prime numbers:**

63

71

81



## Week 2: Day 4 Answers

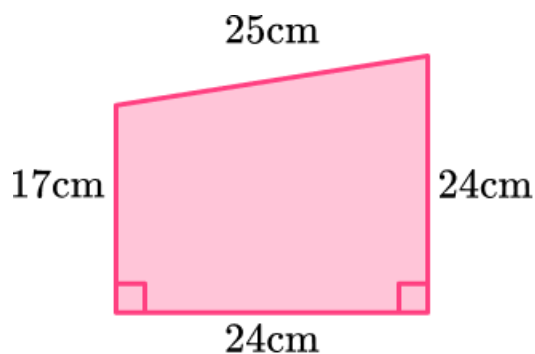
1) Calculate:  $5005 - 2688 = 2317$

2) Convert the decimal to a fraction in its simplest form:

$$0.48 = \frac{12}{25}$$

3) Write in normal form:  $3.75 \times 10^{-7} = 0.000000375$

4) Find the area of the shape below.  $492\text{cm}^2$



5) Identify all the prime numbers:

63

71

81

## Week 2: Day 5

1) **Calculate:**  $287 - 455 + 309 =$

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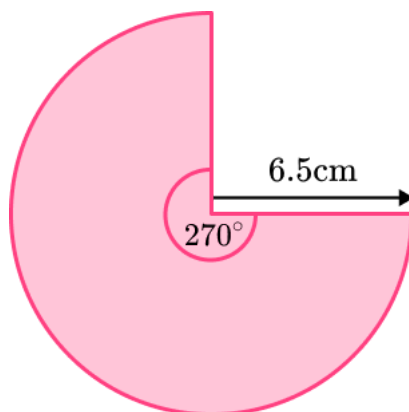
2) **Convert the percentage to a fraction in its simplest form:**  
**35%**

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3) **Write in normal form:**  $2.17 \times 10^6 =$

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4) **A circle has a sector removed. Find the area of the shaded region that remains.**



5) **Identify all the prime numbers:**

79

83

93

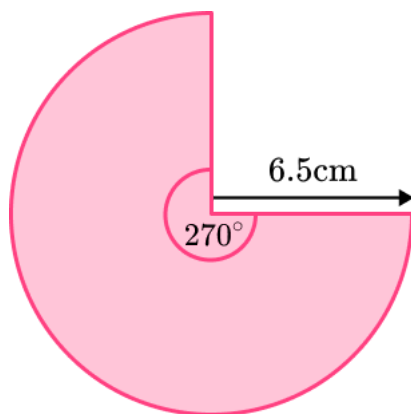
## Week 2: Day 5 Answers

1) Calculate:  $287 - 455 + 309 = 141$

2) Convert the percentage to a fraction in its simplest form:  
 $35\% = \frac{7}{20}$

3) Write in normal form:  $2.17 \times 10^6 = 2170000$

- 4) A circle has a sector removed. Find the area of the shaded region that remains.  $99.5\text{cm}^2$  (to 1dp)



- 5) Identify all the prime numbers:

79

83

93

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