

Week 8

This week in a nutshell:

Students may need access to previously seen material to support them when answering questions like these. A new topic comes in question 4 and using mirrors or tracing paper will help students to answer this.

Question 1: Improper fractions and mixed numbers

Question 2: Simplifying algebra

Question 3: Written methods (worded)

Question 4: Reflecting in a mirror line

Question 5: Ratio (writing and simplifying)

This week's ideas for class discussion include:

Question 1: **Improper fractions and mixed numbers**

- Why do we need improper fractions?
- Why do we need mixed numbers?
- Why does this discrepancy not arise with the decimal system?

Question 2: **Simplifying algebra**

- Is simpler always better?

Question 3: **Written methods (worded)**

- Why do we rewrite worded questions as figures, rather than doing the calculations as words?

Question 4: **Reflecting in a mirror line**

- Describe your method for reflecting a shape.

Question 5: **Ratio (writing and simplifying)**

- Does simplest imply most useful?

Week 8: Day 1

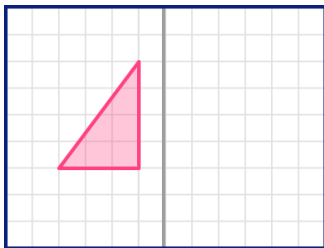
1) Write $\frac{5}{4}$ as a mixed number.

2) Write as one term:

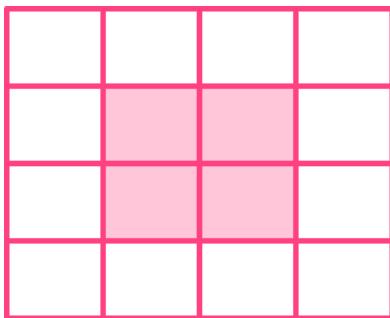
$$2a + 5a$$

3) What is the total of 238 and 427?

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form:



Week 8: Day 1 Answers

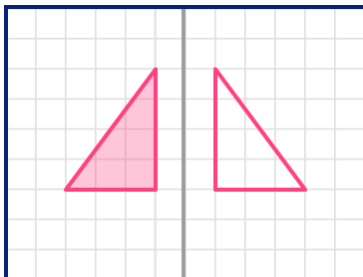
1) Write $\frac{5}{4}$ as a mixed number. $1\frac{1}{4}$

2) Write as one term:

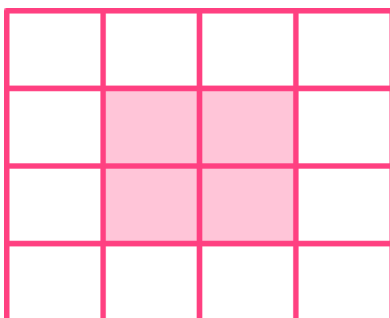
$$2a + 5a = 7a$$

3) What is the total of 238 and 427? 665

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form: 1:3



Week 8: Day 2

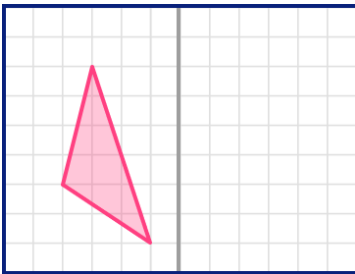
- 1) Write $3\frac{3}{4}$ as an improper fraction.

- 2) Write as one term:

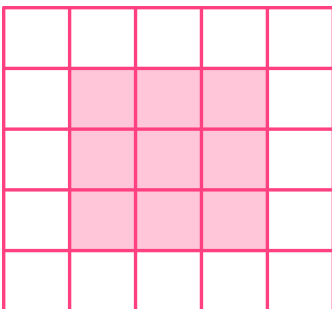
$$8b - b$$

- 3) Determine the difference between 181 and 94.

- 4) Reflect the shape in the mirror line.



- 5) Write the ratio of shaded to unshaded in its simplest form:



Week 8: Day 2 Answers

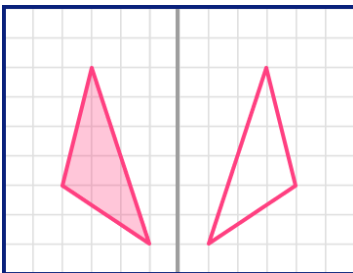
1) Write $3\frac{3}{4}$ as an improper fraction. $\frac{15}{4}$

2) Write as one term:

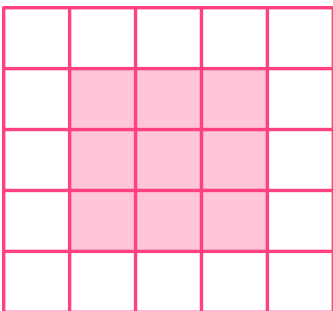
$$8b - b = 7b$$

3) Determine the difference between 181 and 94. 87

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form: 9:16



Week 8: Day 3

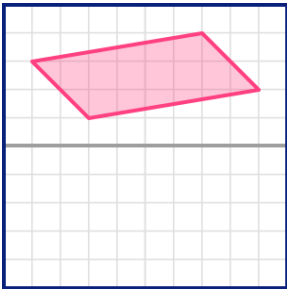
1) Write $\frac{12}{8}$ as a mixed number.

2) Write as one term:

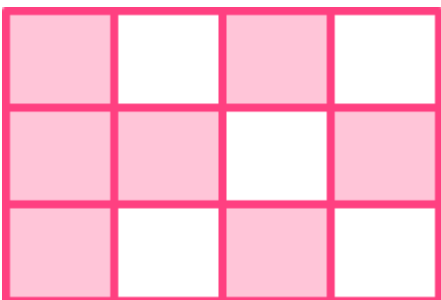
$$2 \times 3c$$

3) Find the product of 36 and 45.

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded:



Week 8: Day 3 Answers

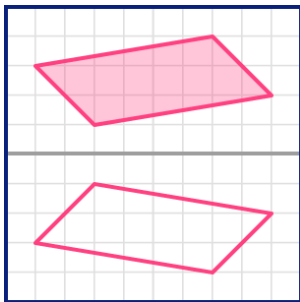
1) Write $\frac{12}{8}$ as a mixed number. $1\frac{1}{2}$

2) Write as one term:

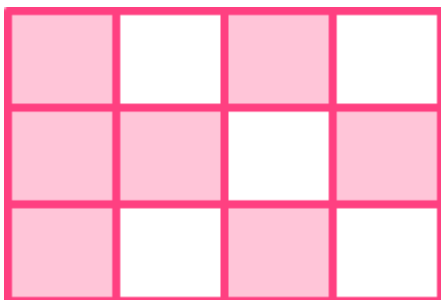
$$2 \times 3c = 6c$$

3) Find the product of 36 and 45. 1620

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded: 7:5



Week 8: Day 4

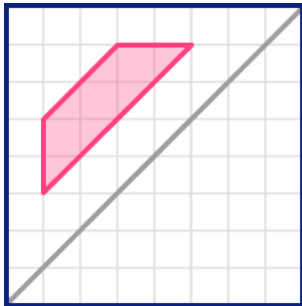
1) Write $4\frac{1}{3}$ as an improper fraction.

2) Write as one term:

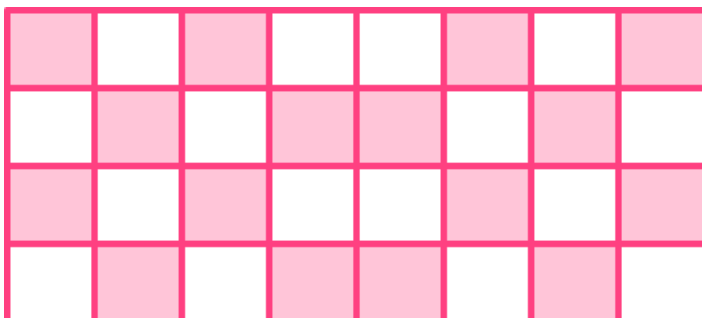
$$4g - 6g + 3g$$

3) Find the quotient and remainder when 408 is divided by 15.

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form:



Week 8: Day 4 Answers

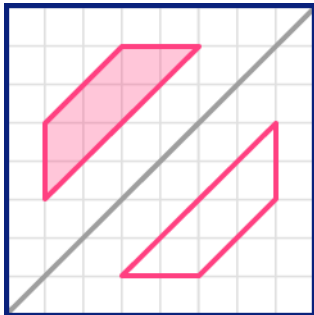
1) Write $4\frac{1}{3}$ as an improper fraction. $\frac{13}{3}$

2) Write as one term:

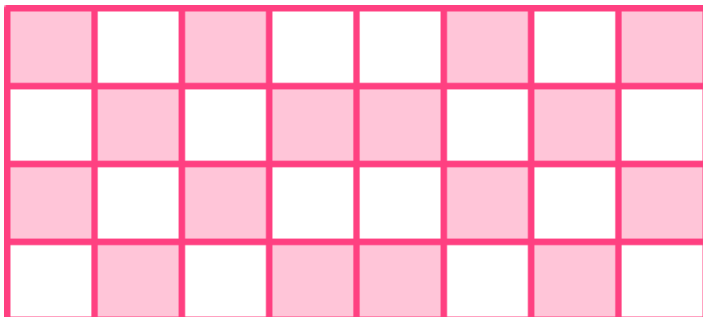
$$4g - 6g + 3g = g$$

3) Find the quotient and remainder when 408 is divided by 15. **27 r3**

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form: **1:1**



Week 8: Day 5

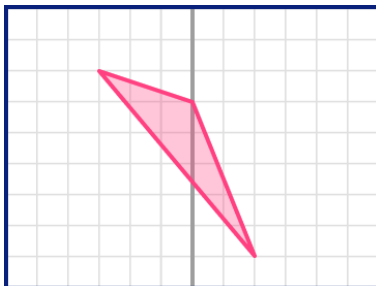
1) Write $\frac{18}{5}$ as a mixed number.

2) Write as one term:

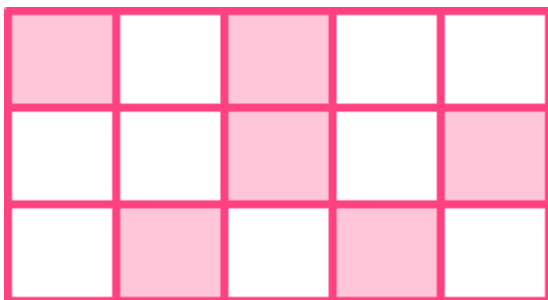
$$8y \div 4y$$

3) What is the sum of 23, 34, 45 and 56?

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form:



Week 8: Day 5 Answers

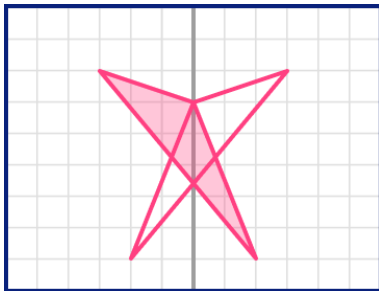
1) Write $\frac{18}{5}$ as a mixed number. $3\frac{3}{5}$

2) Write as one term:

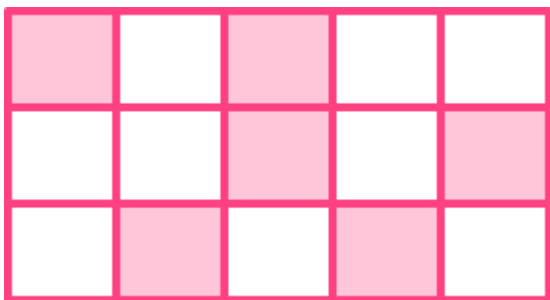
$$8y \div 4y = 2$$

3) What is the sum of 23, 34, 45 and 56? 158

4) Reflect the shape in the mirror line.



5) Write the ratio of shaded to unshaded in its simplest form: 2:3



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