

## Week 10

### This week in a nutshell:

Questions 1, 3, 4 and 5 are essentially about representing values in different ways and require a range of different skills relating to fractions and decimals.

Question 2 deals with coordinates and requires a good understanding of substitution. A student's ability to check and verify calculations is an important skill to develop for both in the classroom and beyond.

**Question 1:** Writing fractions as decimals

**Question 2:** Verifying coordinates

**Question 3:** Simplest form of a fraction

**Question 4:** Representing fractions

**Question 5:** Forming expressions for area

### This week's ideas for class discussion include:

Question 1: **Writing fractions as decimals**

- How do you think the denominator affects what the decimal representation will look like?

Question 2: **Verifying coordinates**

- Why do we need to verify information given to us?

Question 3: **Simplest form of a fraction**

- Is simplest form the "best" form? Why do you think this?

Question 4: **Representing fractions**

- How important is it to be able to show our understanding of maths in different ways?
- Who do these different representations benefit?

Question 5: **Forming expressions for area**

- Do the expressions for area remind you of maths you have seen elsewhere? Why do you think this is the case?

## Week 10: Day 1

1) What is  $\frac{1}{5}$  written as a decimal?

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2) Does the point (1, 3) lie on the line with equation

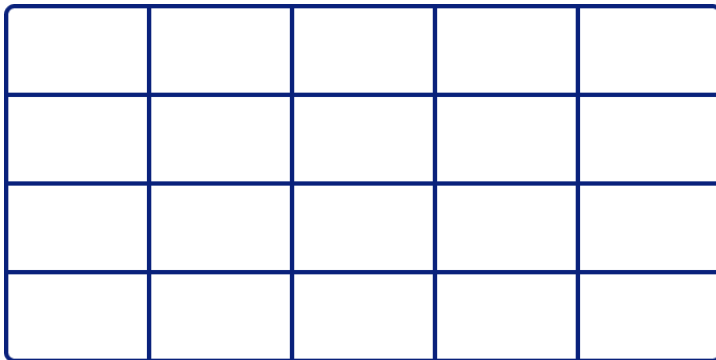
$$y = 2x + 1$$

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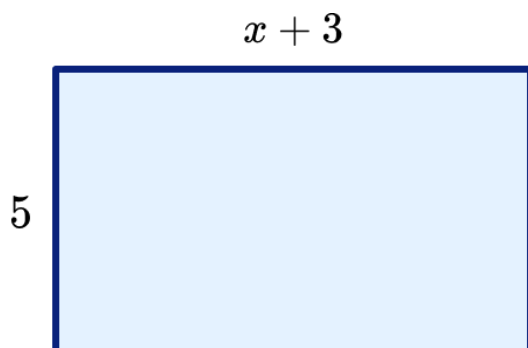
3) Write this fraction in its simplest form:  $\frac{5}{10}$

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4) Shade  $\frac{1}{2}$  of this rectangle



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



## Week 10: Day 1 Answers

1) What is  $\frac{1}{5}$  written as a decimal? **0.2**

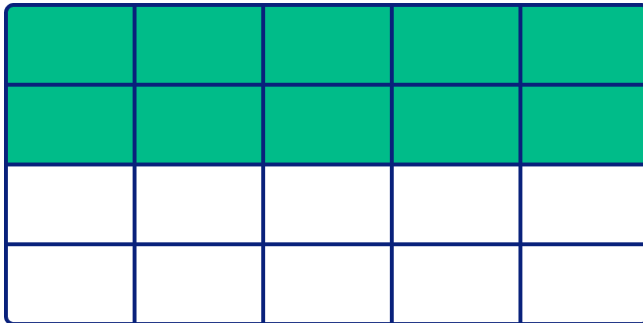
2) Does the point (1, 3) lie on the line with equation

$$y = 2x + 1 \text{ **yes**}$$

3) Write this fraction in its simplest form:  $\frac{5}{10} = \frac{1}{2}$

4) Shade  $\frac{1}{2}$  of this rectangle

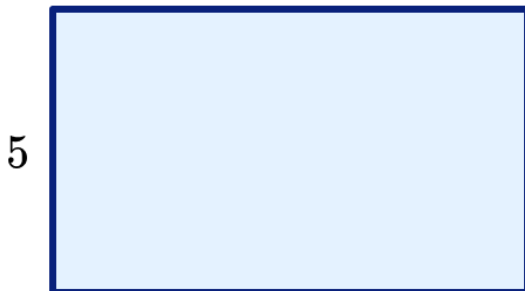
**Any 10 boxes shaded, e.g.**



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

$$\mathbf{5(x + 3) \text{ or } 5x + 15}$$

$$x + 3$$



## Week 10: Day 2

1) What is  $\frac{2}{3}$  written as a decimal?

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2) Does the point (0, 3) lie on the line with equation

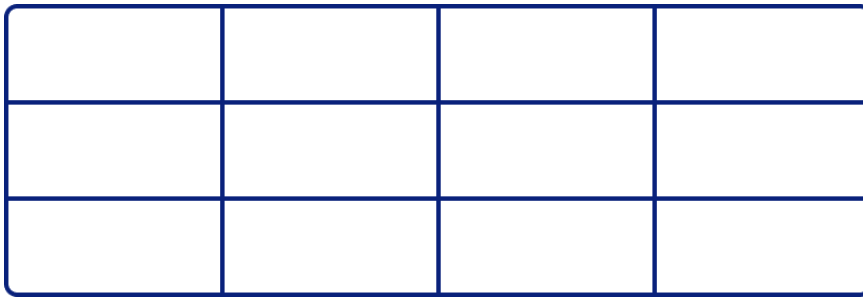
$$y = 4x + 3$$

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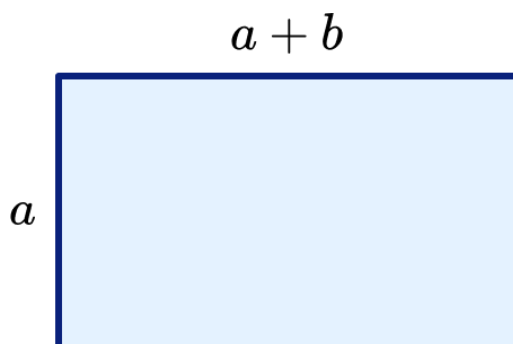
3) Write this fraction in its simplest form:  $\frac{12}{16} =$

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4) Shade  $\frac{2}{3}$  of this rectangle



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



## Week 10: Day 2 Answers

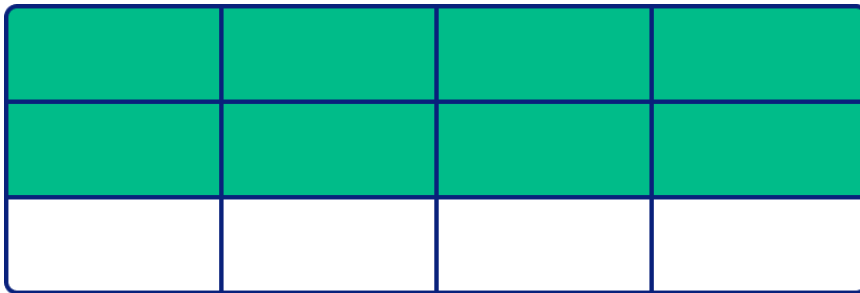
1) What is  $\frac{2}{3}$  written as a decimal? **0.6666...**

2) Does the point (0, 3) lie on the line with equation

$$y = 4x + 3 \quad \text{yes}$$

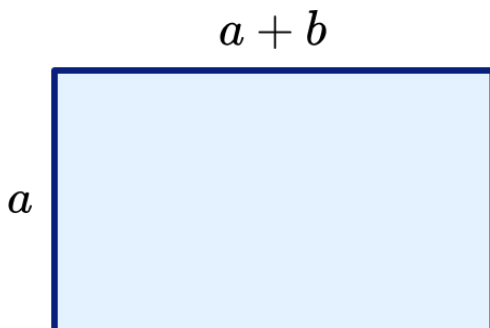
3) Write this fraction in its simplest form:  $\frac{12}{16} = \frac{3}{4}$

4) Shade  $\frac{2}{3}$  of this rectangle **Any 8 boxes shaded, e.g.**



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

$$a(a + b) \quad \text{or} \quad a^2 + ab$$



## Week 10: Day 3

1) What is  $\frac{1}{8}$  written as a decimal?

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2) Does the point  $(-2, -5)$  lie on the line with equation

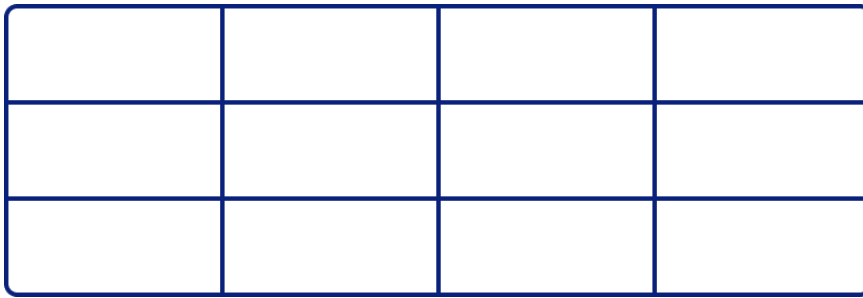
$$y = 3x - 1$$

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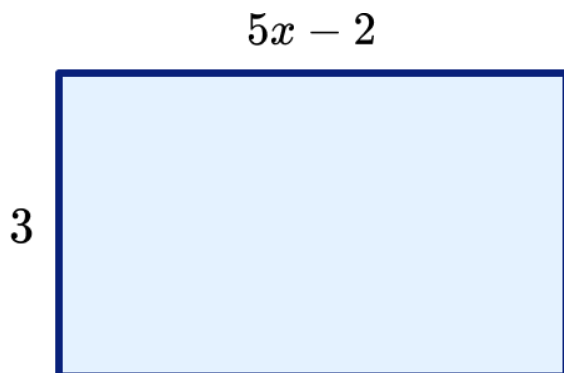
3) Write this fraction in its simplest form:  $\frac{25}{35} =$

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4) Shade  $\frac{3}{4}$  of this rectangle



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



## Week 10: Day 3 Answers

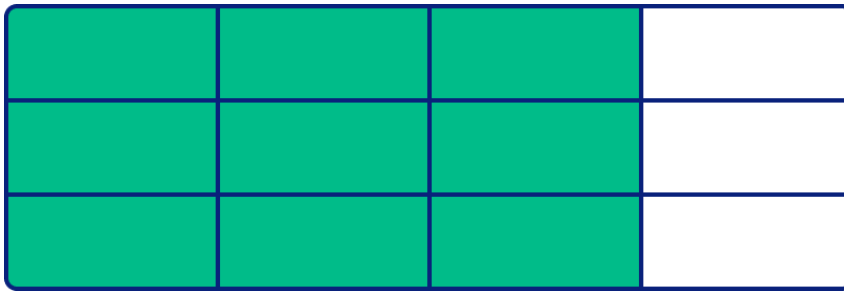
1) What is  $\frac{1}{8}$  written as a decimal? **0.125**

2) Does the point  $(-2, -5)$  lie on the line with equation

$$y = 3x - 1 \quad \text{no}$$

3) Write this fraction in its simplest form:  $\frac{25}{35} = \frac{5}{7}$

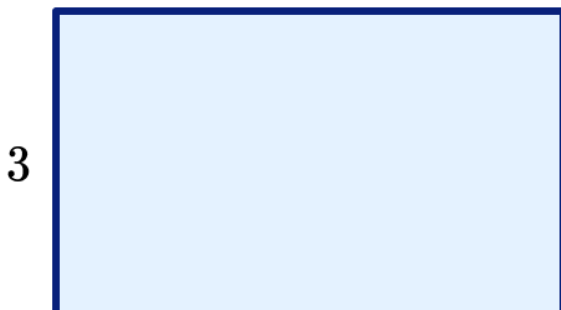
4) Shade  $\frac{3}{4}$  of this rectangle **Any 9 boxes shaded, e.g.**



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

$$3(5x - 2) \quad \text{or} \quad 15x - 6$$

$$5x - 2$$



## Week 10: Day 4

1) What is  $\frac{3}{4}$  written as a decimal?

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2) Does the point (3, 2) lie on the line with equation

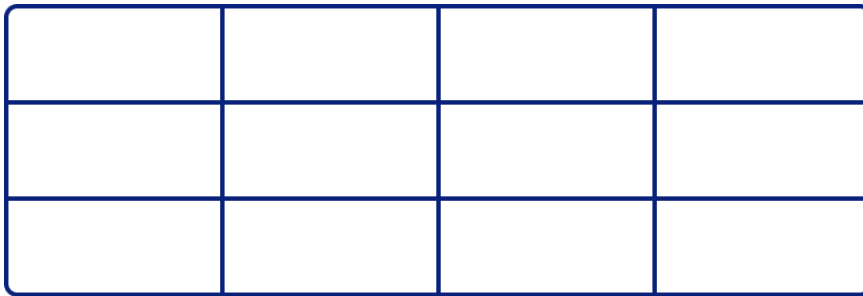
$$y = 5 - x$$

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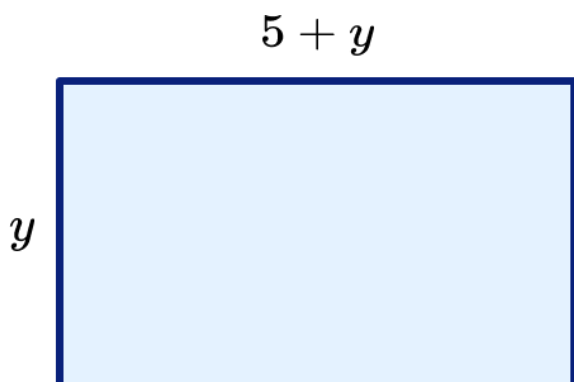
3) Write this fraction in its simplest form:  $\frac{65}{100} =$

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4) Shade  $\frac{3}{8}$  of this rectangle



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





## Week 10: Day 4 Answers

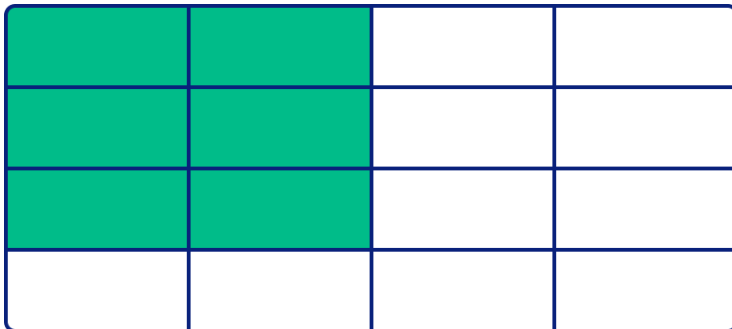
1) What is  $\frac{3}{4}$  written as a decimal? **0.75**

2) Does the point (3, 2) lie on the line with equation

$$y = 5 - x \quad \text{yes}$$

3) Write this fraction in its simplest form:  $\frac{65}{100} = \frac{13}{20}$

4) Shade  $\frac{3}{8}$  of this rectangle **Any 6 boxes shaded, eg**



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

$$y(5 + y) \text{ or } 5y + y^2$$

$$5 + y$$



## Week 10: Day 5

1) What is  $\frac{5}{8}$  written as a decimal?

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2) Does the point  $(-1, 6)$  lie on the line with equation

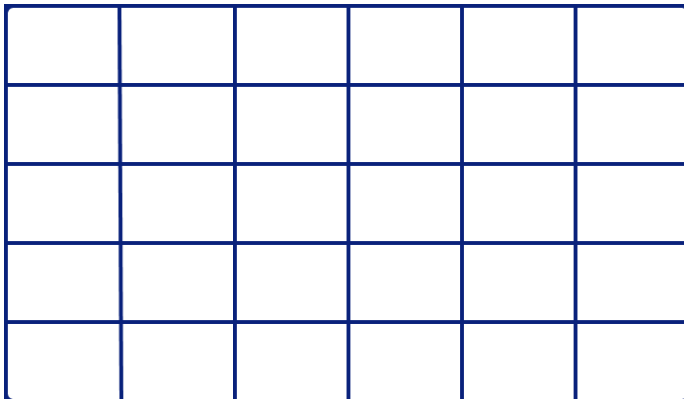
$$x + y = 5$$

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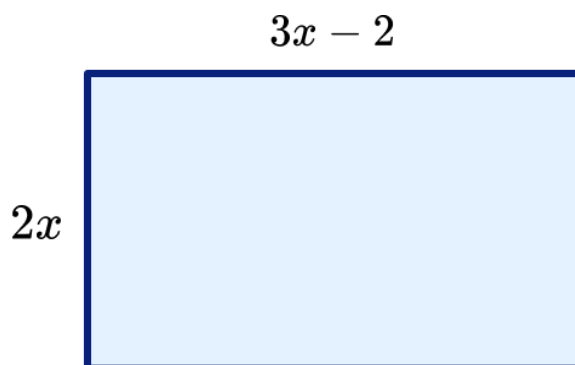
3) Write this fraction in its simplest form:  $\frac{42}{49} =$

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4) Shade  $\frac{3}{5}$  of this rectangle



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



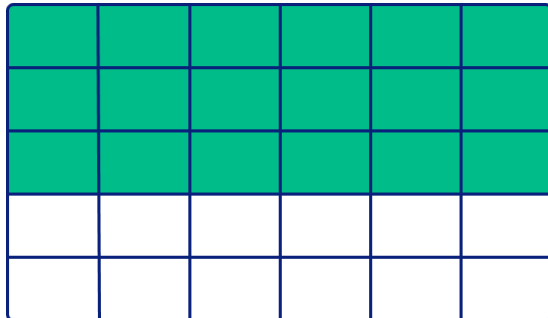
## Week 10: Day 5 Answers

1) What is  $\frac{5}{8}$  written as a decimal? **0.625**

2) Does the point  $(-1, 6)$  lie on the line with equation  $x + y = 5$  **yes**

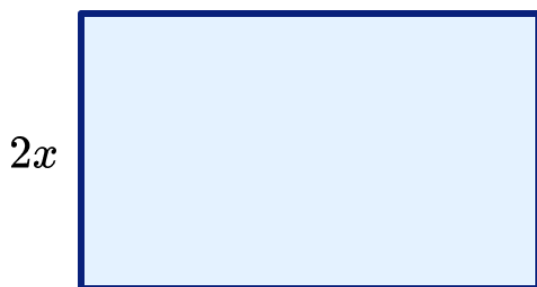
3) Write this fraction in its simplest form:  $\frac{42}{49} = \frac{6}{7}$

4) Shade  $\frac{3}{5}$  of this rectangle **Any 18 boxes shaded, e.g.**



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

**$2x(3x - 2)$  or  $6x^2 - 4x$**   
 $3x - 2$



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