

Week 11

This week in a nutshell:

Much of this week could be considered procedural. These methods are necessary, and understanding how and why they work (or should be used) will be a priority. Adding and subtracting fractions, along with comparing fractions, are dealt with in the same week to enhance the understanding of common denominators. Fluency in dealing with different denominators allows for confidence in this sort of arithmetic.

Question 1: Adding fractions

Question 2: Comparing fractions

Question 3: Subtracting fractions

Question 4: Function machines

Question 5: Forming equations using perimeter

This week's ideas for class discussion include:

Question 1: Adding fractions

- How would you explain the method of adding fractions? What steps are important?

Question 2: Comparing fractions

- How is comparing fractions different to comparing integers or decimals?

Question 3: Subtracting fractions

- How would you explain the method of subtracting fractions?

Question 4: Function machines

- How do you think function machines relate to graphs?
- How do function machines help us be precise in our thinking?

Question 5: Forming expressions for area

- What advice would you give to someone learning this for the first time?
- How do you know you have used the information correctly?

Week 11: Day 1

- 1) Calculate

$$\frac{1}{2} + \frac{1}{2} =$$

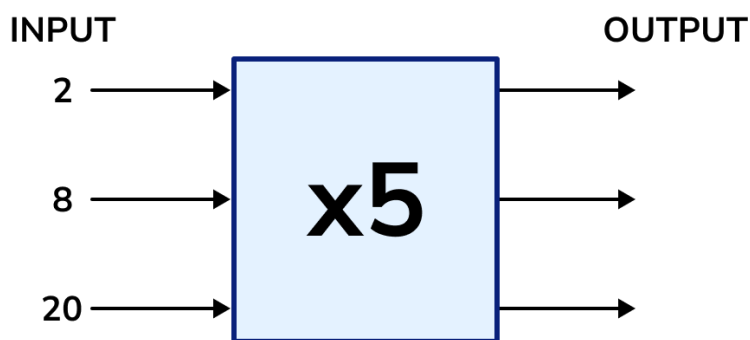
- 2) Circle the larger fraction.

$$\frac{1}{2} \quad \frac{1}{3}$$

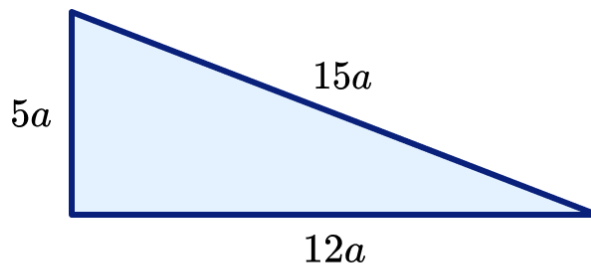
- 3) Work out

$$1 - \frac{1}{3} =$$

- 4) Fill in the missing values for this function machine.



- 5) Form an equation representing perimeter using information about this triangle. (You do not need to solve the equation)



Perimeter: 28

Week 11: Day 1 Answers

1) Calculate

$$\frac{1}{2} + \frac{1}{2} = 1$$

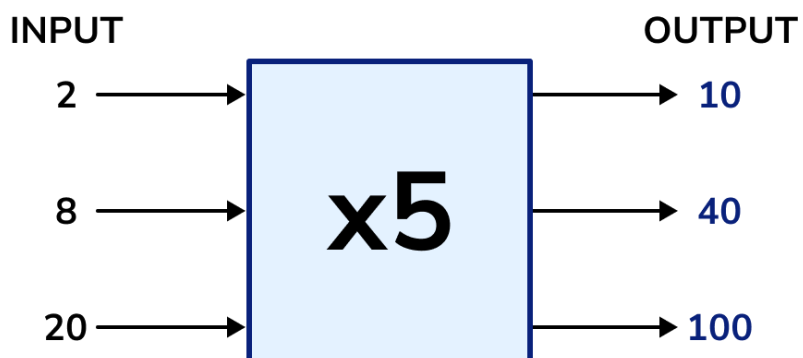
2) Circle the larger fraction.

$$\frac{1}{2} \quad \frac{1}{3}$$

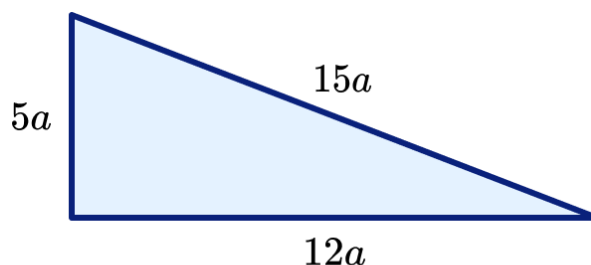
3) Work out

$$1 - \frac{1}{3} = \frac{2}{3}$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this triangle. (You do not need to solve the equation)



Perimeter: 28

$$32a = 28$$

Week 11: Day 2

- 1) Calculate

$$\frac{1}{2} + \frac{1}{4} =$$

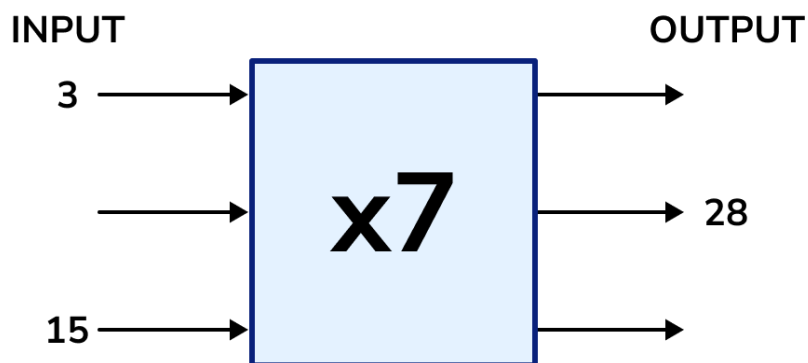
- 2) Circle the larger fraction.

$$\frac{2}{3} \quad \frac{3}{4}$$

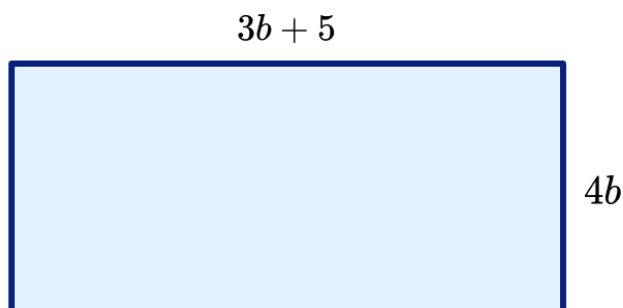
- 3) Work out

$$\frac{1}{2} - \frac{1}{3} =$$

- 4) Fill in the missing values for this function machine.



- 5) Form an equation representing perimeter using information about this rectangle. (You do not need to solve the equation)



Perimeter: 45

Week 11: Day 2 Answers

1) Calculate

$$\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$$

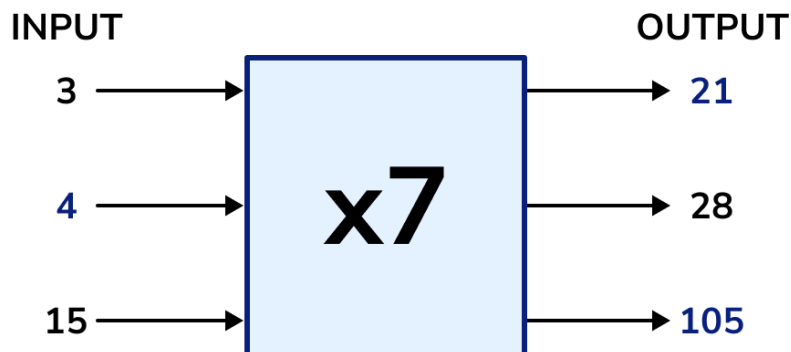
2) Circle the larger fraction.

$$\frac{2}{3} \quad \frac{3}{4}$$

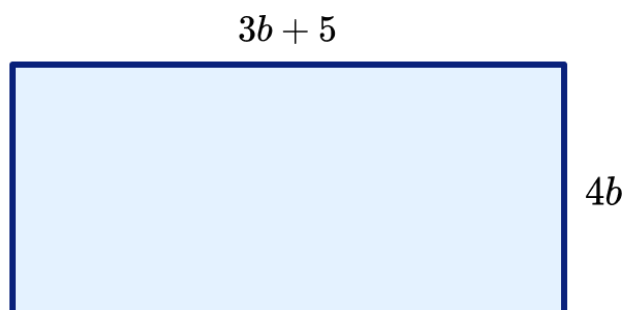
3) Work out

$$\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this rectangle. (You do not need to solve the equation)



Perimeter: 45

$$14b + 10 = 45$$

Week 11: Day 3

- 1) Calculate

$$\frac{1}{4} + \frac{1}{3} =$$

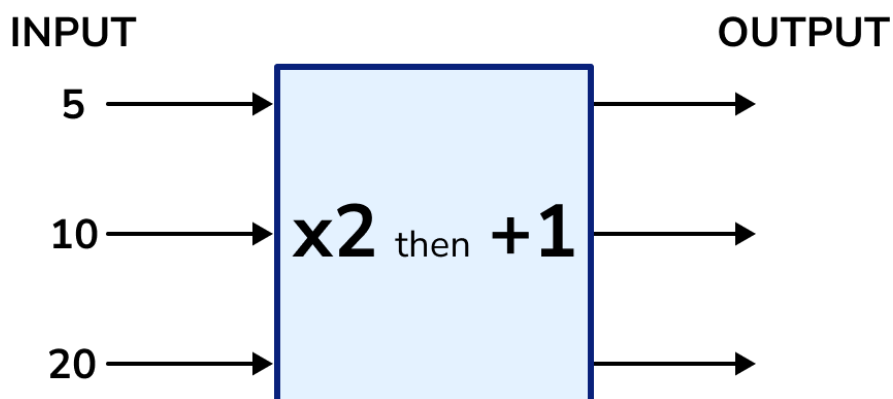
- 2) Circle the larger fraction.

$$\frac{5}{8} \quad \frac{3}{5}$$

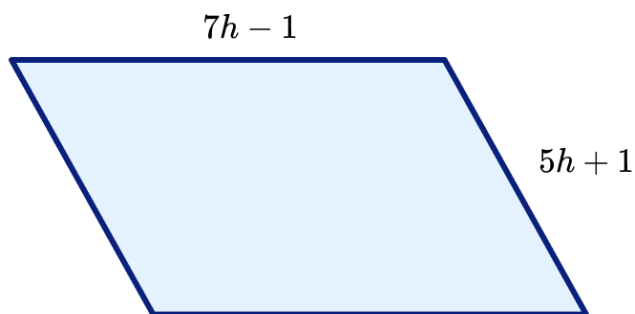
- 3) Work out

$$\frac{1}{3} - \frac{1}{4} =$$

- 4) Fill in the missing values for this function machine.



- 5) Form an equation representing perimeter using information about this parallelogram. (You do not need to solve the equation)



Perimeter: 50

Week 11: Day 3 Answers

1) Calculate

$$\frac{1}{4} + \frac{1}{3} = \frac{7}{12}$$

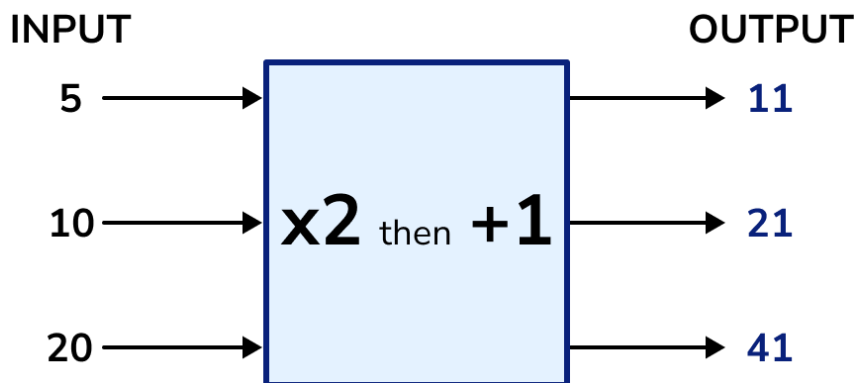
2) Circle the larger fraction.

$$\frac{5}{8} \quad \frac{3}{5}$$

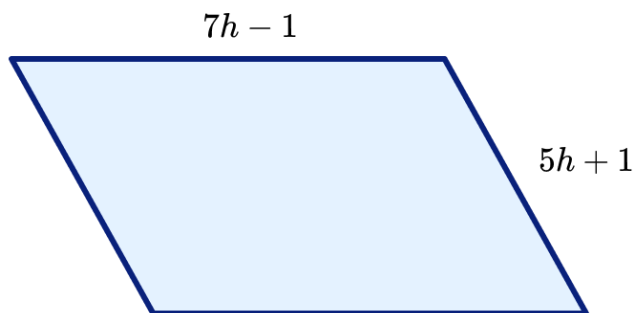
3) Work out

$$\frac{1}{3} - \frac{1}{4} = \frac{1}{12}$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this parallelogram. (You do not need to solve the equation)



Perimeter: 50

$$24h = 50$$

Week 11: Day 4

1) Calculate

$$\frac{1}{7} + \frac{1}{4} =$$

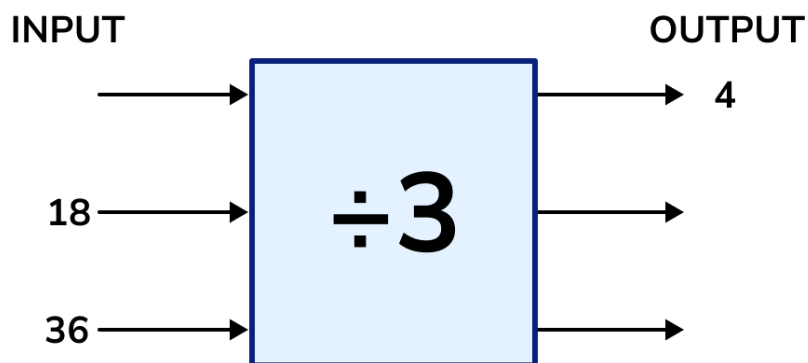
2) Circle the larger fraction.

$$\frac{5}{8} \quad \frac{3}{4} \quad \frac{2}{3}$$

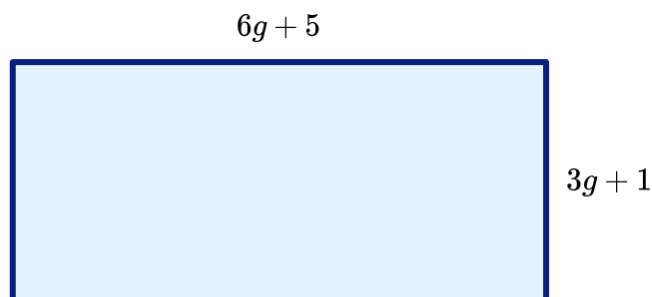
3) Work out

$$\frac{3}{8} - \frac{1}{4} =$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this rectangle. (You do not need to solve the equation)



Perimeter: 28

Week 11: Day 4 Answers

1) Calculate

$$\frac{1}{7} + \frac{1}{4} = \frac{11}{28}$$

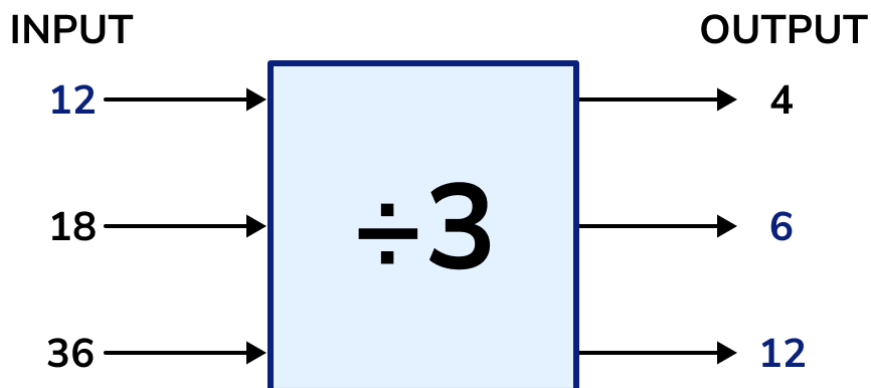
2) Circle the larger fraction.

$$\frac{5}{8} \quad \frac{3}{4} \quad \frac{2}{3}$$

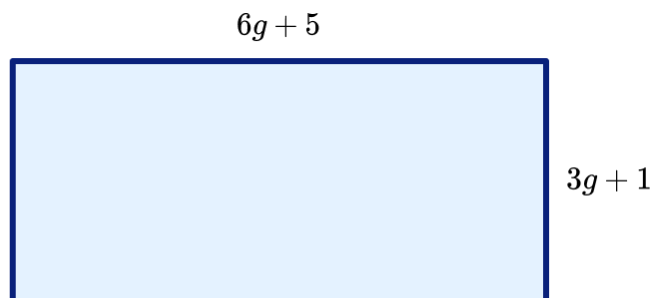
3) Work out

$$\frac{3}{8} - \frac{1}{4} = \frac{1}{8}$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this rectangle. (You do not need to solve the equation)



Perimeter: 28

$$18g = 16$$

Week 11: Day 5

1) Calculate

$$\frac{1}{8} + \frac{1}{4} + \frac{1}{2} =$$

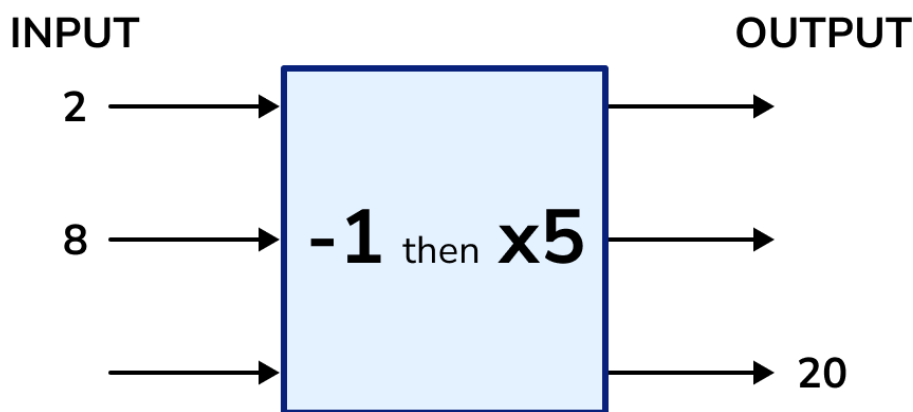
2) Circle the larger fraction.

$$\frac{4}{5} \quad \frac{7}{8} \quad \frac{17}{20}$$

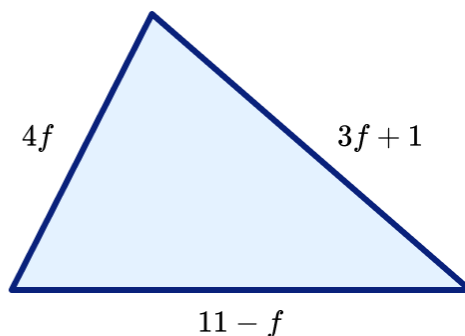
3) Work out

$$\frac{3}{4} - \frac{2}{3} =$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this triangle. (You do not need to solve the equation)



Perimeter: 25

Week 1: Day 5 Answers

1) Calculate

$$\frac{1}{8} + \frac{1}{4} + \frac{1}{2} = \frac{7}{8}$$

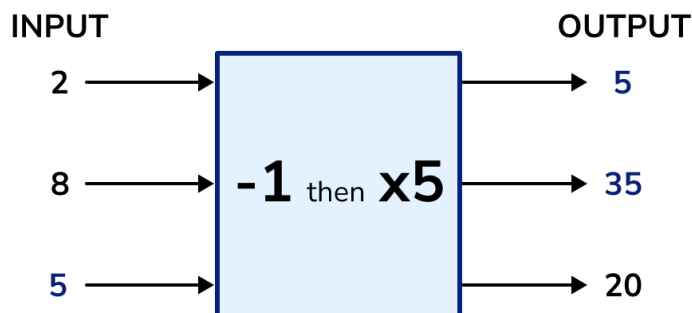
2) Circle the larger fraction.

$$\frac{4}{5} \quad \frac{7}{8} \quad \frac{17}{20}$$

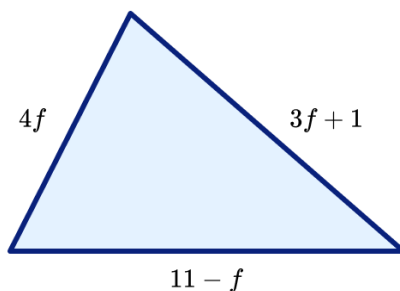
3) Work out

$$\frac{3}{4} - \frac{2}{3} = \frac{1}{12}$$

4) Fill in the missing values for this function machine.



5) Form an equation representing perimeter using information about this triangle. (You do not need to solve the equation)



Perimeter: 25

$$6f = 13$$

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