

# Week 5 Year 3 Maths

## Fractions

# Monday Lesson 1- Equivalent Fractions (2)

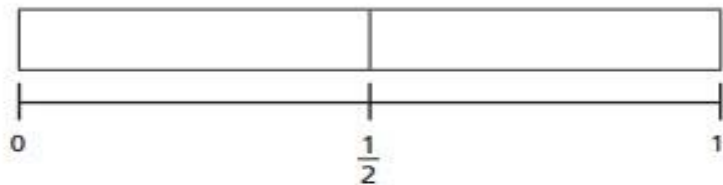
- Here is the link to today's video. Click on Summer-Week 1 Lesson 1 Equivalent Fractions (2)
- <https://whiterosemaths.com/homelearning/year-3/>

## Equivalent fractions (2)

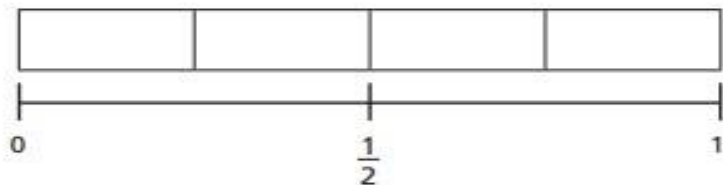



1 Shade the bar models to represent the fractions.

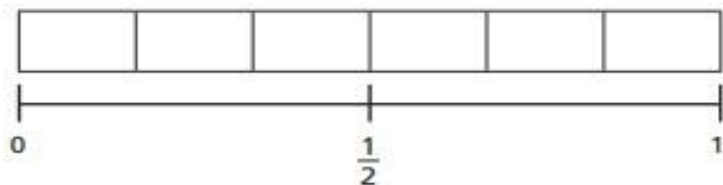
a) Shade  $\frac{1}{2}$  of the bar model.



b) Shade  $\frac{2}{4}$  of the bar model.



c) Shade  $\frac{3}{6}$  of the bar model.

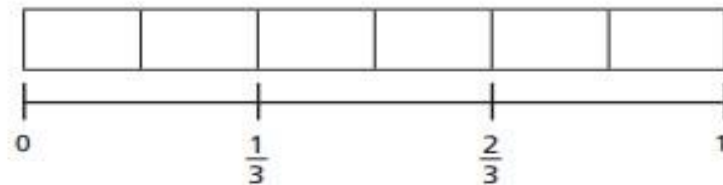


d) What do you notice?

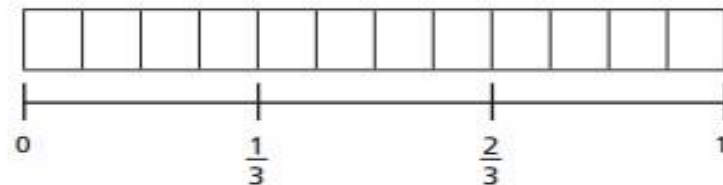
e) Write another fraction that is equivalent to  $\frac{1}{2}$

2 Shade  $\frac{2}{3}$  of each bar model.

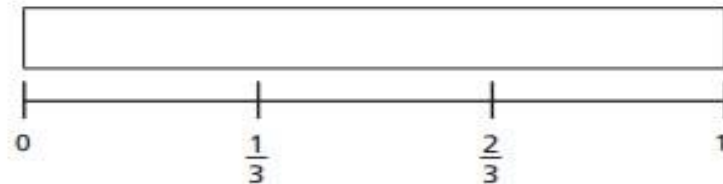
a)



b)



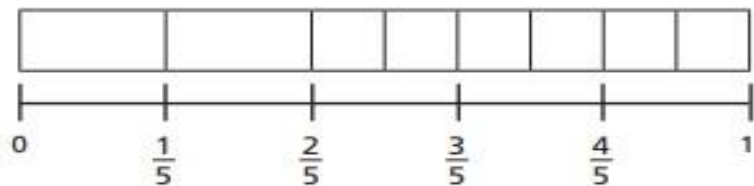
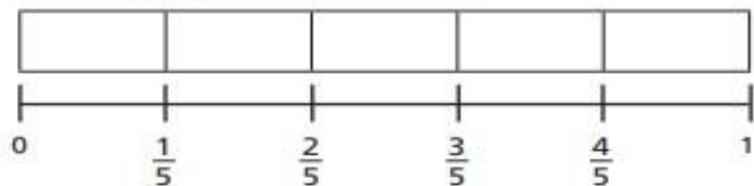
c)



d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

$$\frac{2}{3} = \frac{\square}{6} = \frac{8}{\square} = \frac{\square}{15}$$

3 Mo is finding equivalent fractions.

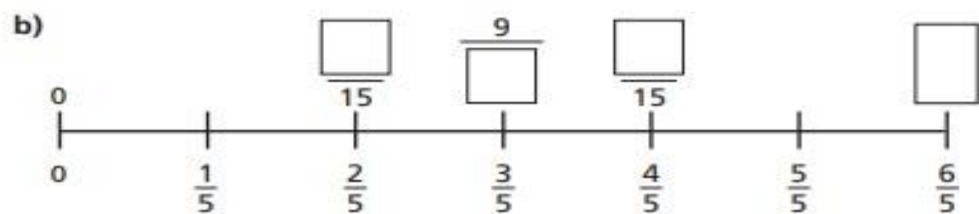
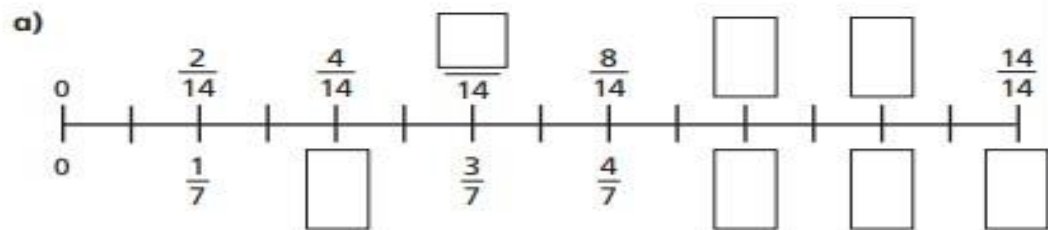


$\frac{6}{8}$  is equivalent to  $\frac{4}{5}$

Do you agree with Mo? \_\_\_\_\_

Explain your answer.

4 Find the missing numbers.



5 Here is a number line.



a) What fraction is each shape pointing to?

=       =

b) A circle is halfway between the triangle and the square.

Draw the circle on the number line.

c)

The circle is pointing to  $\frac{9}{21}$

Do you agree with Eva? \_\_\_\_\_

Show how you worked this out.

d) Write three equivalent fractions for each shape.

Compare answers with a partner.


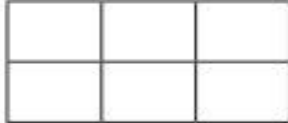
# Tuesday


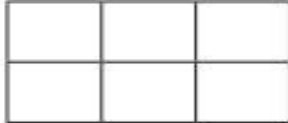
- Here is the link to today's video. Click on Summer-Week 1. Lesson 2 Equivalent Fractions (3)
- <https://whiterosemaths.com/homelearning/year-3/>


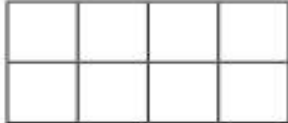
# Equivalent fractions (3)


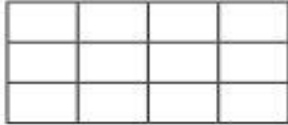


1 Shade the shapes to help you complete the equivalent fractions.

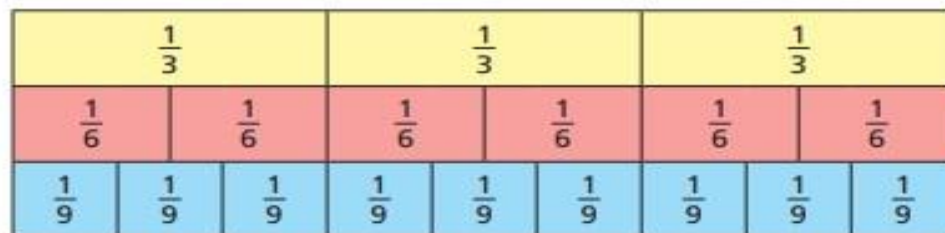
a)    $\frac{1}{3} = \frac{\square}{\square}$

b)    $\frac{1}{2} = \frac{\square}{\square}$

c)    $\frac{3}{4} = \frac{\square}{\square}$

d)    $\frac{3}{4} = \frac{\square}{\square}$

2 Use the fraction wall to complete the equivalent fractions.



a)  $\frac{1}{3} = \frac{\square}{6}$

d)  $\frac{2}{3} = \frac{6}{\square}$

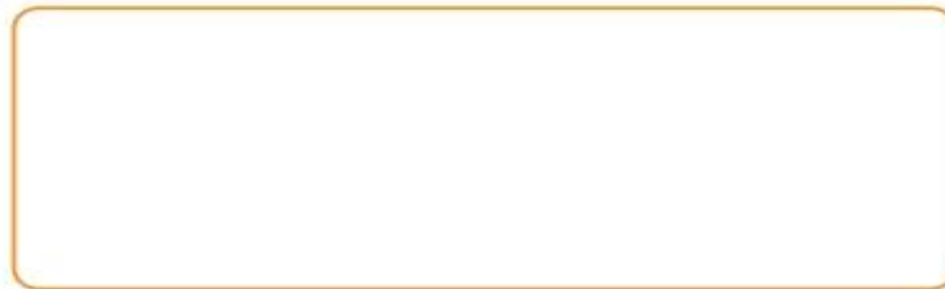
b)  $\frac{1}{3} = \frac{\square}{9}$

e)  $\frac{4}{6} = \frac{6}{\square}$

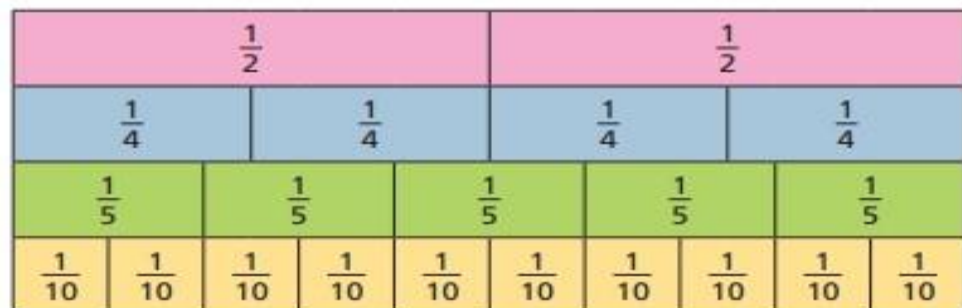
c)  $\frac{2}{3} = \frac{4}{\square}$

f)  $\frac{1}{3} = \frac{\square}{6} = \frac{\square}{9}$

3 Draw a picture to show that one quarter is equivalent to two eighths.



- 4 Use the fraction wall to decide whether the fractions are equivalent or not.



Complete the sentences using **is** or **is not**.

- a)  $\frac{1}{2}$  \_\_\_\_\_ equivalent to  $\frac{2}{4}$
- b)  $\frac{1}{4}$  \_\_\_\_\_ equivalent to  $\frac{2}{10}$
- c)  $\frac{1}{2}$  \_\_\_\_\_ equivalent to  $\frac{5}{10}$
- d)  $\frac{3}{10}$  \_\_\_\_\_ equivalent to  $\frac{2}{5}$
- e)  $\frac{4}{5}$  \_\_\_\_\_ equivalent to  $\frac{8}{10}$
- f)  $\frac{3}{4}$  \_\_\_\_\_ equivalent to  $\frac{4}{5}$

Write some sentences of your own and ask a partner to fill in the gaps.

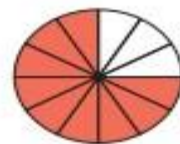


- 5 a) What fraction of each shape is shaded?










- b) Use the fractions in part a) to complete the sentences.

is equivalent to

is equivalent to

is not equivalent to

is not equivalent to

Compare answers with a partner.

- 6 The bar model represents  $\frac{1}{2}$

Write as many equivalent fractions as you can.

What is the same about all the fractions you have written?

# Wednesday Lesson 3-Comparing Fractions

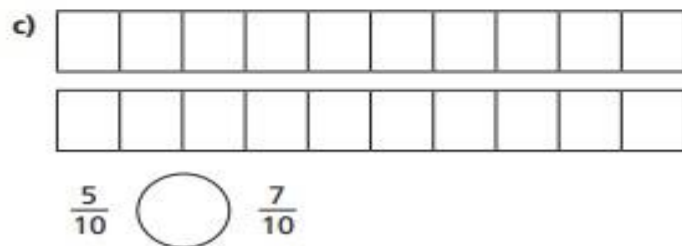
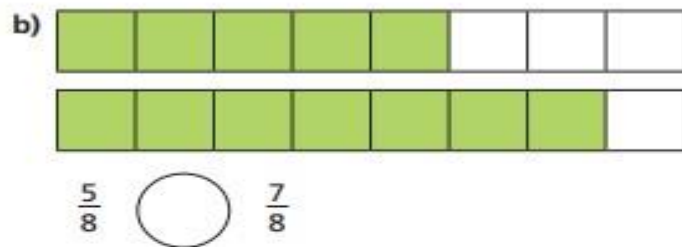
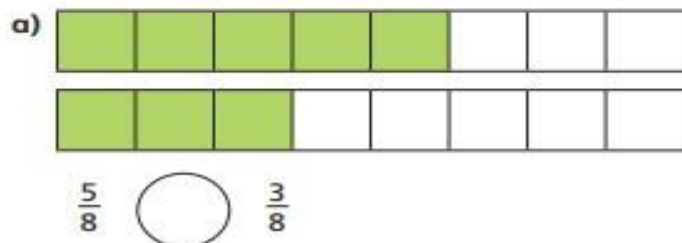
- Here is the link to today's video. Click on Summer-Week 1. Lesson 3 Comparing Fractions
- <https://whiterosemaths.com/homelearning/year-3/>



## Compare fractions

1 Write  $<$ ,  $>$  or  $=$  to compare the fractions.

Use the bar models to help you.



2 Write  $<$ ,  $>$  or  $=$  to compare the fractions.

a)  $\frac{1}{5}$  ○  $\frac{3}{5}$

d)  $\frac{6}{7}$  ○  $\frac{2}{7}$

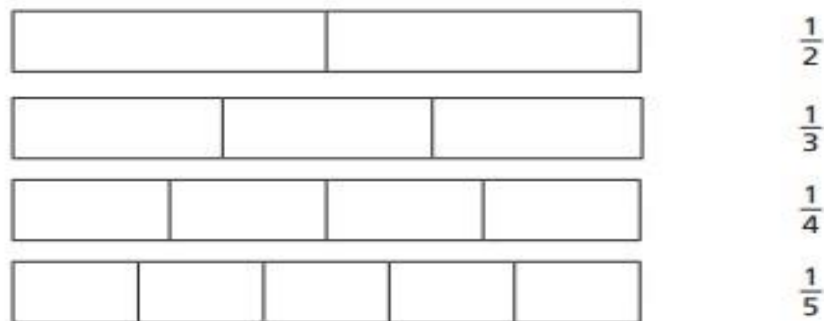
b)  $\frac{2}{5}$  ○  $\frac{2}{5}$

e)  $\frac{6}{13}$  ○  $\frac{12}{13}$

c)  $\frac{2}{7}$  ○  $\frac{6}{7}$

f)  $\frac{13}{15}$  ○  $\frac{13}{15}$

3 Here are some bar models.



a) Shade the bar models to represent the fractions.

b) Write  $<$  or  $>$  to compare the fractions.

Use the bar models to help you.

$\frac{1}{2}$  ○  $\frac{1}{3}$        $\frac{1}{4}$  ○  $\frac{1}{3}$        $\frac{1}{5}$  ○  $\frac{1}{3}$

$\frac{1}{3}$  ○  $\frac{1}{2}$        $\frac{1}{4}$  ○  $\frac{1}{5}$        $\frac{1}{5}$  ○  $\frac{1}{2}$



- 4 What could the missing numerators and denominators be?  
Give three examples for each.

a)  $\frac{1}{5} < \frac{\square}{5}$        $\frac{1}{5} < \frac{\square}{5}$        $\frac{1}{5} < \frac{\square}{5}$

b)  $\frac{1}{5} < \frac{1}{\square}$        $\frac{1}{5} < \frac{1}{\square}$        $\frac{1}{5} < \frac{1}{\square}$

- 5 Jack is comparing fractions.

$\frac{1}{8}$  is greater than  $\frac{1}{4}$   
because 8 is greater than 4



Draw bar models to show that Jack is wrong.

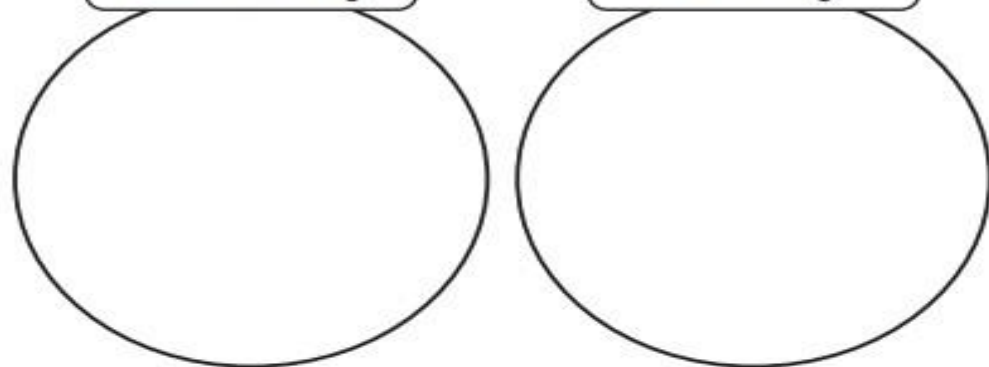


- 6 Sort the fractions into the circles.



greater than  $\frac{1}{6}$

less than  $\frac{1}{6}$



- 7 Complete the sentences using the word bank.

numerator

denominator

greater

smaller

a) When fractions have the same denominator, the greater the \_\_\_\_\_, the \_\_\_\_\_ the fraction.

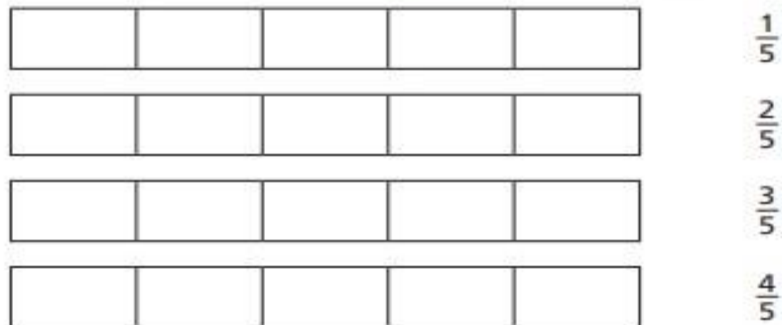
b) When fractions have the same numerator, the greater the \_\_\_\_\_, the \_\_\_\_\_ the fraction.

# Thursday Lesson 4-Ordering Fractions

- Here is the link to today's video. Click on Summer-Week 1. Lesson 4 Ordering Fractions

<https://whiterosemaths.com/homelearning/year-3/>

1 a) Shade the bar models to represent the fractions.

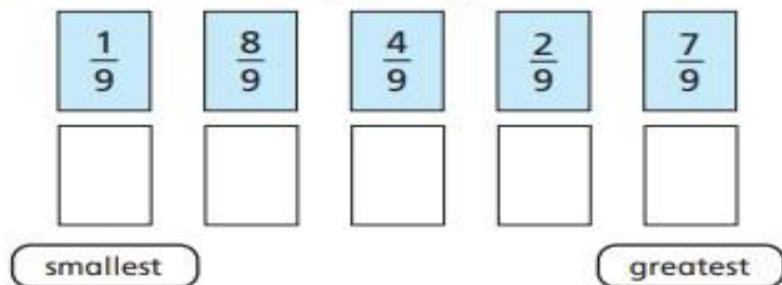


b) What do you notice?

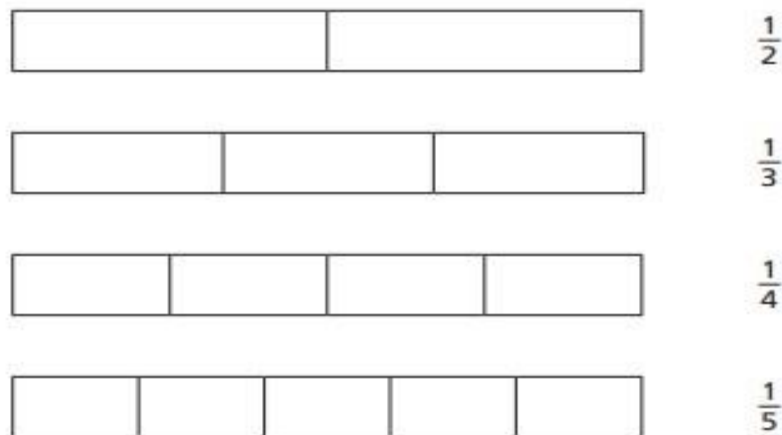
c) Complete the sentence.

When fractions have the same \_\_\_\_\_, the \_\_\_\_\_ the \_\_\_\_\_ the \_\_\_\_\_ the fraction.

2 Write the fractions in order, starting with the smallest.



3 a) Shade the bar models to represent the fractions.

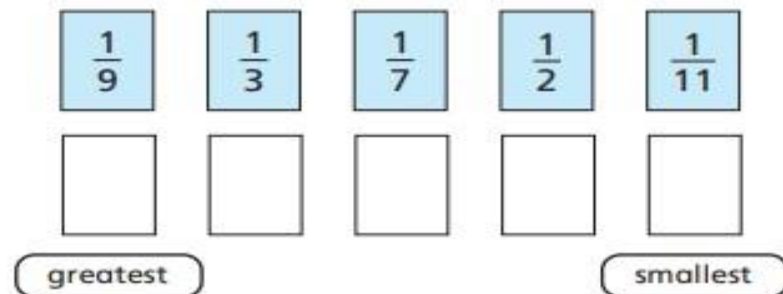


b) What do you notice?

c) Complete the sentence.

When fractions have the same \_\_\_\_\_, the \_\_\_\_\_ the \_\_\_\_\_ the \_\_\_\_\_ the fraction.

4 Write the fractions in order, starting with the greatest.



- 5 Tommy and Dora are ordering fractions.

$$\frac{1}{5}$$

$$\frac{4}{15}$$

$$\frac{2}{3}$$

$$\frac{7}{15}$$



Tommy

I cannot order these fractions because the numerators and denominators are different.

I think I can use equivalent fractions to help me.



Dora

Who do you agree with? \_\_\_\_\_

Talk about it with a partner.

- 6 a) Complete the equivalent fractions.

$$\frac{3}{5} = \frac{6}{\square}$$

$$\frac{2}{9} = \frac{6}{\square}$$

$$\frac{1}{7} = \frac{6}{\square}$$

- b) Write the fractions in order, starting with the greatest.

$$\frac{6}{9}$$

$$\frac{3}{5}$$

$$\frac{1}{7}$$

$$\frac{2}{9}$$

greatest

smallest

- 7 Dexter and Alex are ordering fractions from smallest to greatest.

$$\frac{1}{7}$$

$$\frac{2}{21}$$

$$\frac{4}{35}$$

$$\frac{2}{7}$$

- a)



Dexter

I am going to make the numerators the same.

Use Dexter's method to put the fractions in order.

- b)

I am going to make the denominators the same.



Alex

Use Alex's method to put the fractions in order.

- c) Which method do you prefer? Talk about it with a partner.

# Friday Challenge Day.

- Have a go at these Maths Challenges. Good Luck!
- Here is today's link. Click on Summer-Week 1. Lesson 5 Maths Challenges

<https://whiterosemaths.com/homelearning/year-3/>



## Challenge 1

Can you work out the values of each shape?

$$\star + \star = 20$$

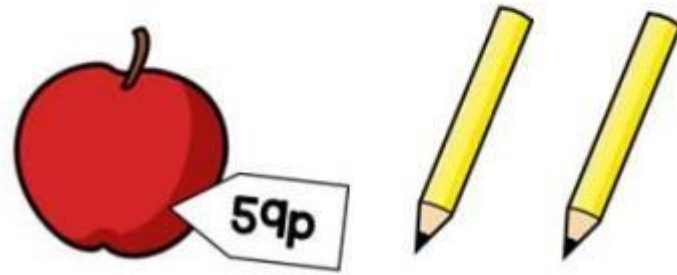
$$\heartsuit - \star = 7$$

$$\heartsuit - \heartsuit = \blacktriangle$$

## Challenge 2

Tom has six 10p coins and three 5p coins. He buys an apple for 59p and two pencils.

He has no money left. How much does a pencil cost?



### Challenge 3

Here are some digit cards.



Amir and Donna each make a three-digit number using all the cards.

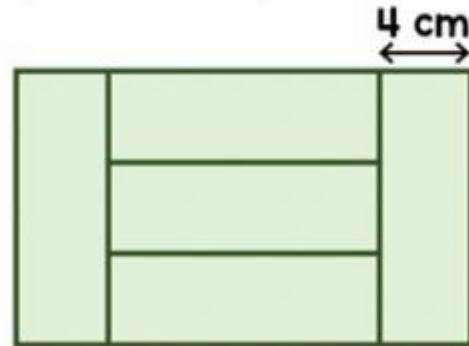
Amir notices that when he subtracts his number from Donna's number he gets an answer greater than 300 but less than 400.

What numbers did they make?

### Challenge 4

Five identical rectangles are put together to make a large rectangle.

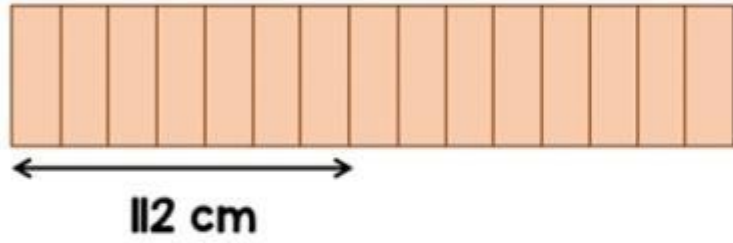
The width of one rectangle is 4 cm. Work out the perimeter of the large rectangle.





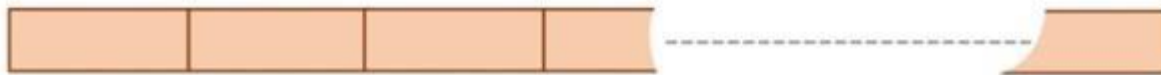
## Challenge 5

15 identical blocks are lined up as shown.



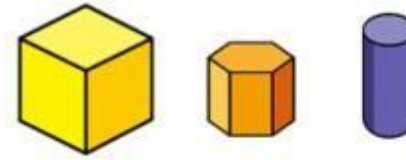
The length of each individual block is twice the width.

If all 15 blocks are then laid end to end lengthways, what is the total length of the blocks altogether now?

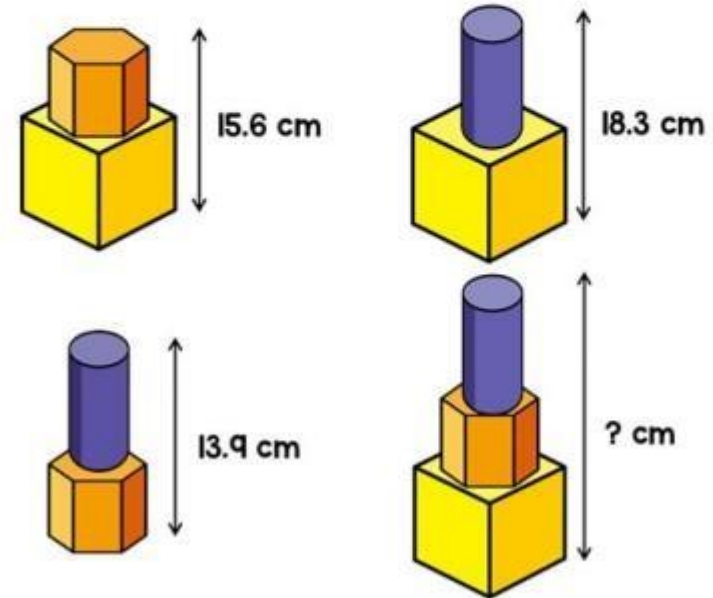


## Challenge 6

Liam has these three shapes.



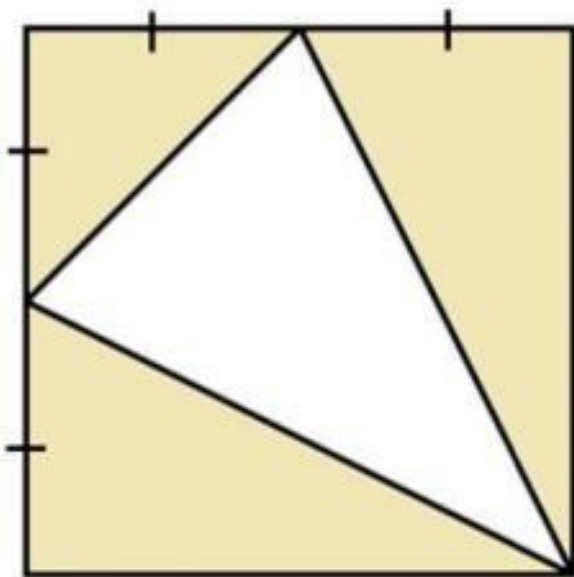
He uses them to make different towers. He measures the height of each tower he makes.



Liam stacks all three shapes to make one tall tower. How tall is the tower?

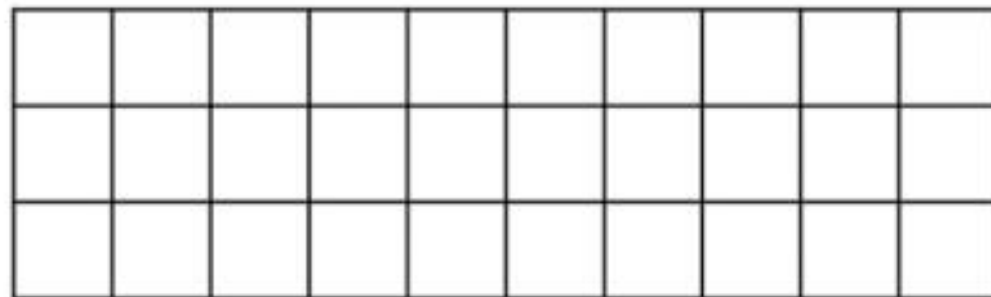
## Challenge 7

The diagram shows a square. The square has been divided into 4 triangles. What fraction of the square is shaded?



## Challenge 8

Lisa has this squared grid.



She shades some squares green so that the ratio of green squares to white squares is **1:2**.

She shades some more squares green so that the ratio of green squares to white squares is **4:1**.

How many more squares did Lisa need to shade?

## Challenge 9

Mo is reading a book.

- On Monday he reads  $\frac{2}{5}$  of the book.
- On Tuesday he reads  $\frac{1}{2}$  of the remaining pages.
- On Wednesday he reads  $\frac{5}{9}$  of the remaining pages.
- On Thursday he reads the rest of the book.

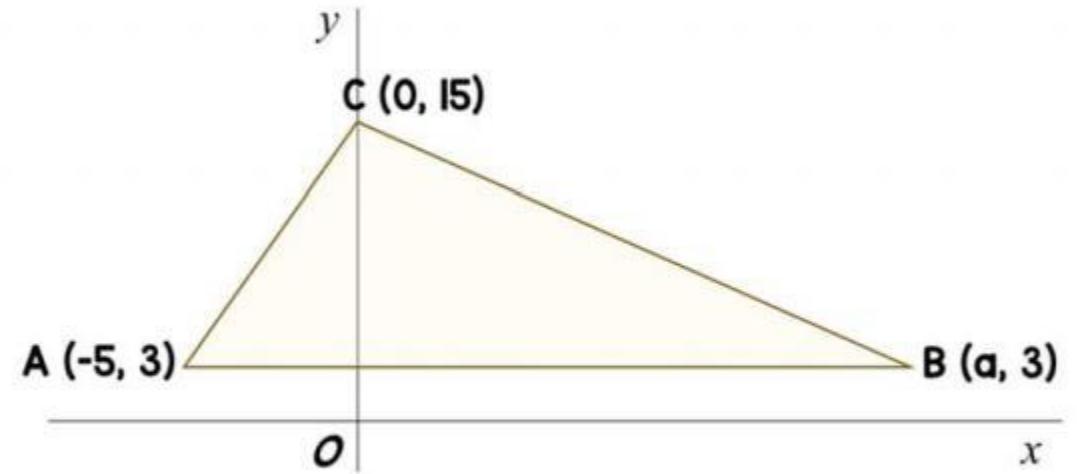
Mo read 68 more pages on Tuesday than Wednesday.

How many pages are there in the book?



## Challenge 10

Triangle ABC is shown.



The area of ABC is 126 units<sup>2</sup>.

Find the perimeter of triangle ABC.