

EQUIVALENT FRACTIONS

Day 1

WHAT DO YOU KNOW ABOUT FRACTIONS?

- A fraction can express part of a **whole**:



1 of 4 pieces
of the whole
pizza was
eaten

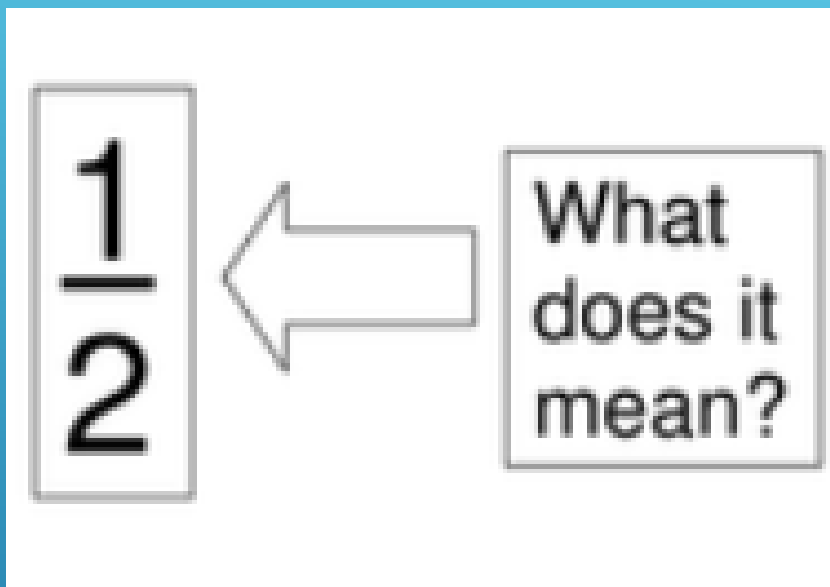
- A fraction can express part of a **set**



1 of 4
cookies in
the set was
eaten

► They are equal parts of a whole

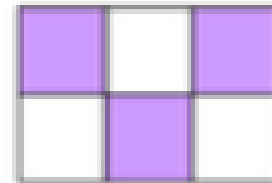
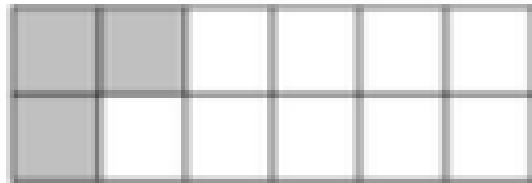
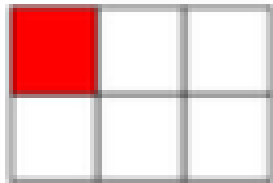
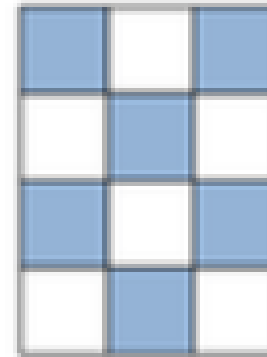
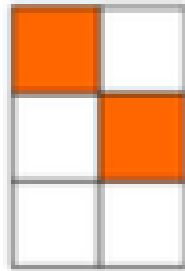
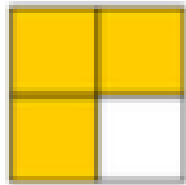
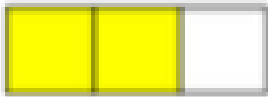
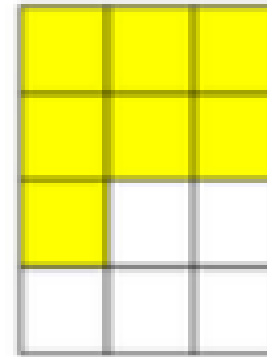
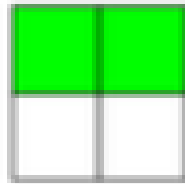
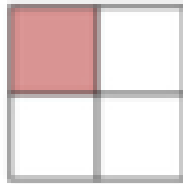
WHAT IS A FRACTION?



- ▶ The top number is called the numerator.
- ▶ The numerator represents how many parts we have.
- ▶ The bottom number is called the denominator.
- ▶ The denominator represents how many parts it has been equally split up into.

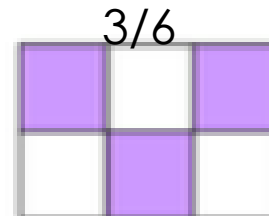
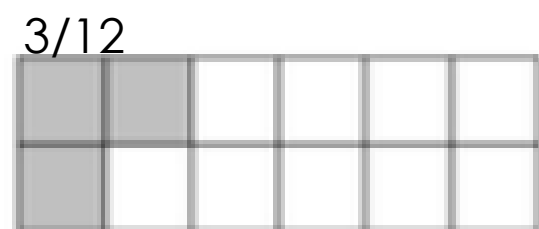
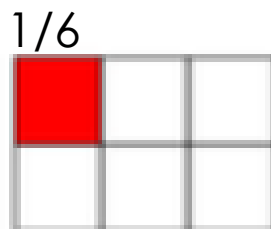
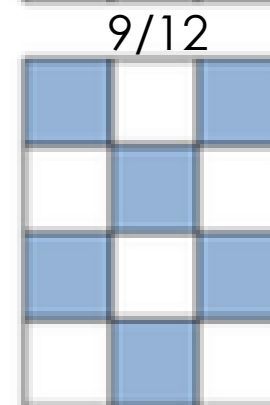
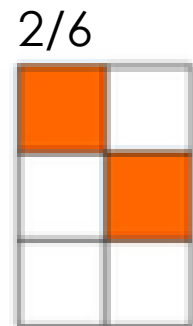
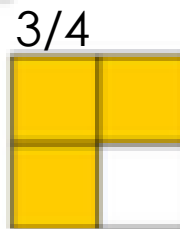
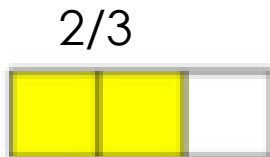
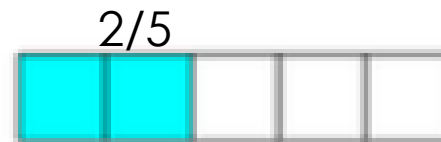
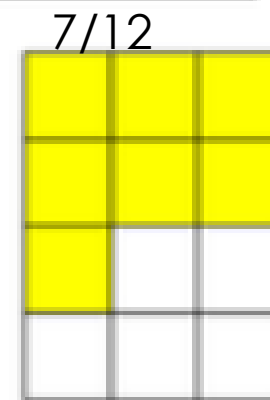
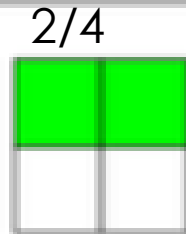
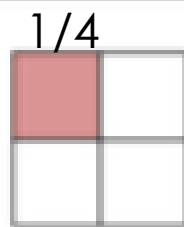
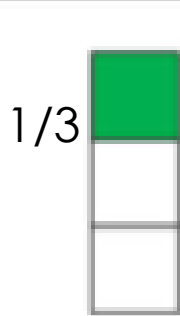
THE FIRST SHAPE IS $\frac{1}{2}$ BECAUSE IT IS SPLIT INTO 2 EQUAL PARTS (DENOMINATOR) AND 1 PART OF THIS IS SHADED (NUMERATOR). CAN YOU FIND THE FRACTIONS OF THESE SHAPES?

What fraction of the whole is the shaded area in these drawings?



ANSWERS

What fraction of the whole is the shaded area in these drawings?



Equivalent fractions

- ▶ Can you tell me what an equivalent fraction is?
- ▶ An equivalent fraction is a fraction which has the same value, even though they may look different or be written differently.



$\frac{1}{2}$



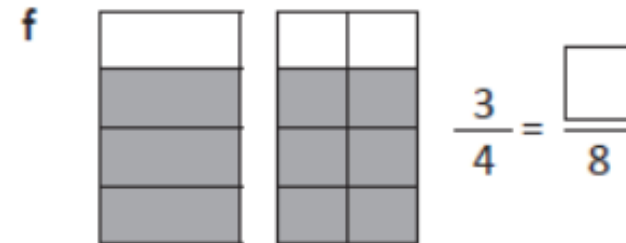
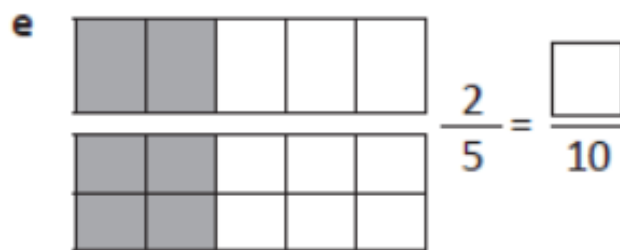
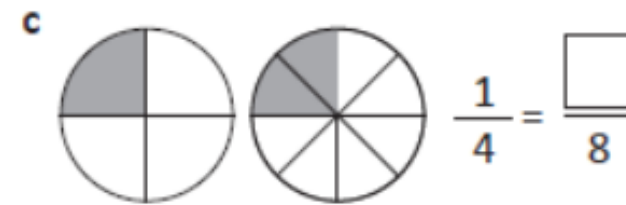
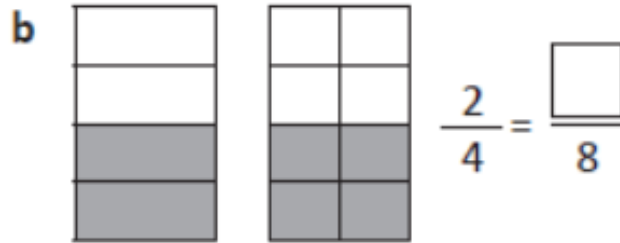
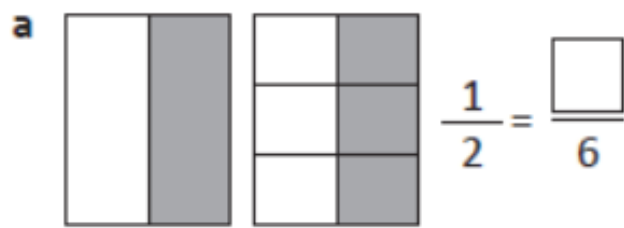
$\frac{2}{4}$

has the same value as

Equivalent fractions

An equivalent fraction is a fraction which has the same value, even though they may look different or be written differently.

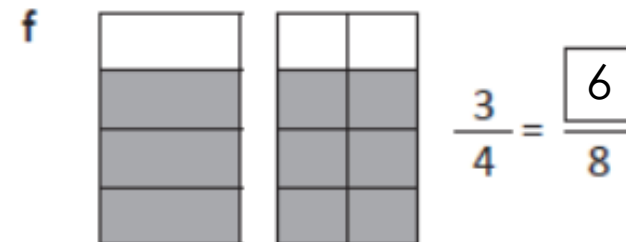
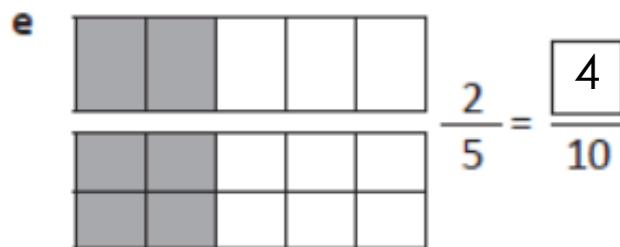
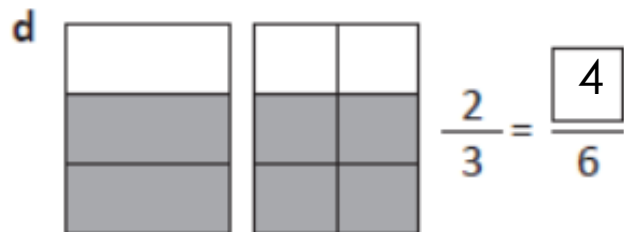
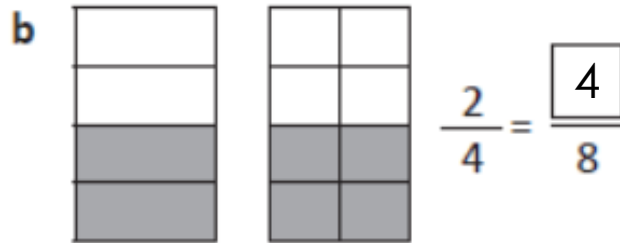
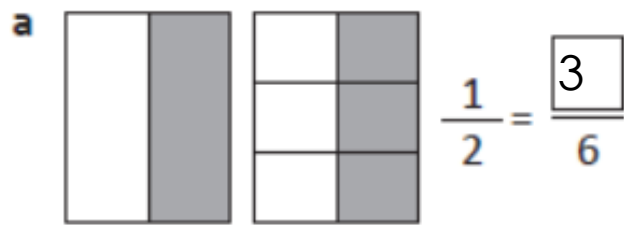
Can you fill in the gaps to these equivalent fractions?



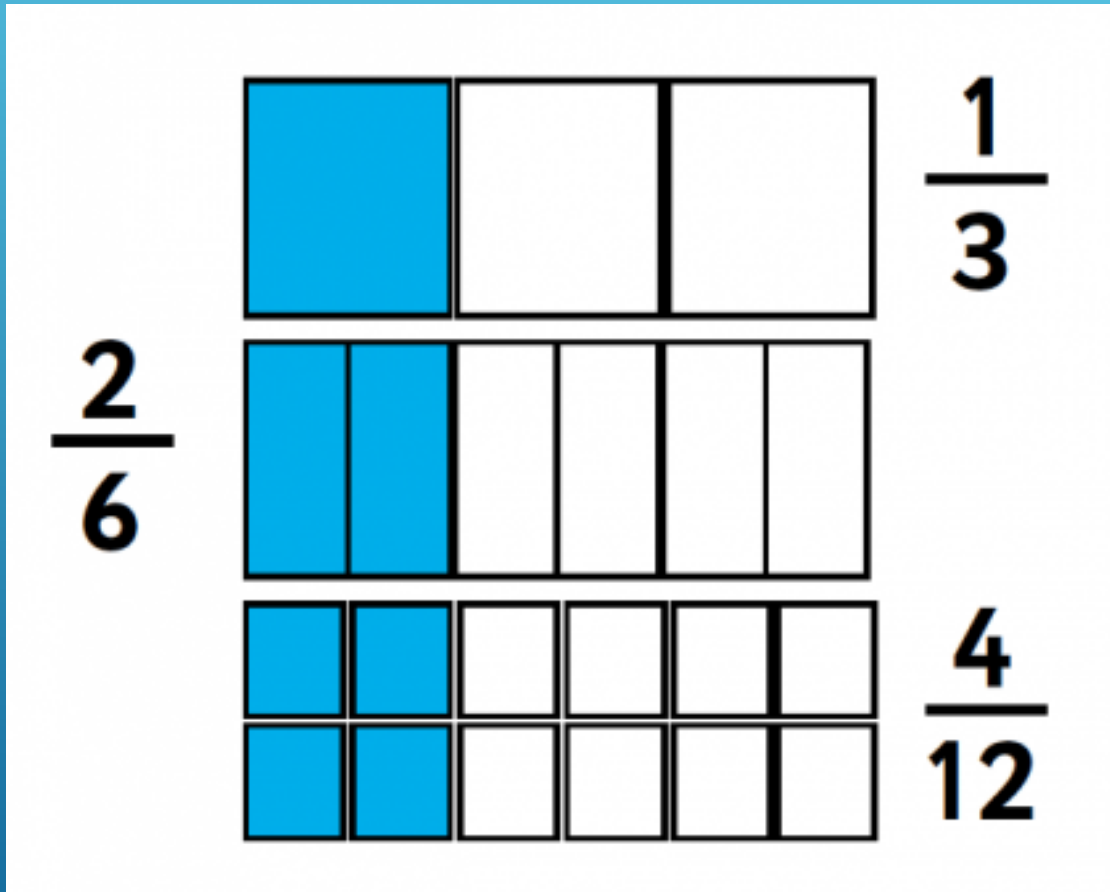
Equivalent fractions

What do you notice about the equivalent fractions?

Can you spot a patten?



Equivalent fractions



$\frac{1}{3}$

If I multiply the numerator and denominator by 2 then we get an equivalent fraction $\frac{2}{6}$.

If I multiply the numerator and denominator by 4 we get an equivalent fraction of $\frac{4}{12}$.

Equivalent fractions

RULE: **EQUIVALENT FRACTIONS**
can ONLY be made
by
multiplying or dividing
AND

Whatever I do to the numerator (top)
I've got to do to the denominator



<https://www.youtube.com/watch?v=qcHHhd6HizI>

I do

$$2/5 = ?/10$$

So, If I look at my rules, I know that 10 is bigger than 5 so I must be multiplying.

$$5 \times \underline{\quad} = 10$$

I know that 2 lots of 5 make 10.
I know that whatever I do to the numerator, I do to the denominator.

$$\text{So } 2 \times 2 = 4.$$

I know that $2/5$ is equivalent to $4/10$.

Equivalent fractions

RULE: **EQUIVALENT FRACTIONS**
can ONLY be made
by
multiplying or dividing
AND

Whatever I do to the numerator (top)
I've got to do to the denominator



You do

Using the rules, can you find the equivalent fractions below?

Equivalent Fractions

$$\frac{1}{4} = \frac{\square}{8}$$

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

$$\frac{4}{6} = \frac{\square}{12}$$

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

$$\frac{1}{2} = \frac{\square}{8}$$

$$\frac{2}{3} = \frac{\square}{12}$$

$$\frac{3}{6} = \frac{\square}{12}$$

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

$$\frac{3}{4} = \frac{\square}{8}$$

$$\frac{5}{6} = \frac{\square}{12}$$

Equivalent fractions

RULE: **EQUIVALENT FRACTIONS**
can ONLY be made
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AND

Whatever I do to the numerator (top)
I've got to do to the denominator



You do

Using the rules, can you find the equivalent fractions below?

Equivalent Fractions

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

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

$$\frac{4}{6} = \frac{\boxed{8}}{12}$$

$$\frac{2}{3} = \frac{\boxed{4}}{6}$$

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

$$\frac{2}{3} = \frac{\boxed{8}}{12}$$

$$\frac{3}{6} = \frac{\boxed{6}}{12}$$

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

$$\frac{3}{4} = \frac{\boxed{6}}{8}$$

$$\frac{5}{6} = \frac{\boxed{10}}{12}$$

- ▶ Have a go at the practise questions.
 - ▶ The answers have been uploaded so you can self check.
 - ▶ Feel free to send the questions to us if you are feeling proud!
 - ▶ Good luck!
- 
- A series of white diagonal lines of varying lengths and thicknesses, located in the bottom right corner of the slide.

► Equivalent Fractions

DAY 2



- ▶ Let's recap...
 - ▶ What does equivalent mean?
 - ▶ How do we find equivalent fractions?
- 
- A series of three parallel white diagonal lines in the bottom right corner of the slide, extending from the bottom edge towards the right edge.

- ▶ Let's recap...
- ▶ What does equivalent mean? Fractions that hold the same value e.g. $2/4 = 8/16$
- ▶ How do we find equivalent fractions?

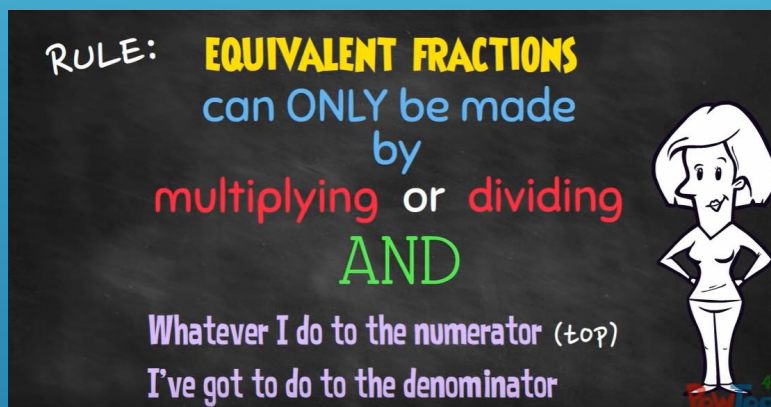
RULE: **EQUIVALENT FRACTIONS**
can ONLY be made
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Whatever I do to the numerator (top)
I've got to do to the denominator



4!

How to

Can you decide whether these statements about equivalent fractions are true or false?



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

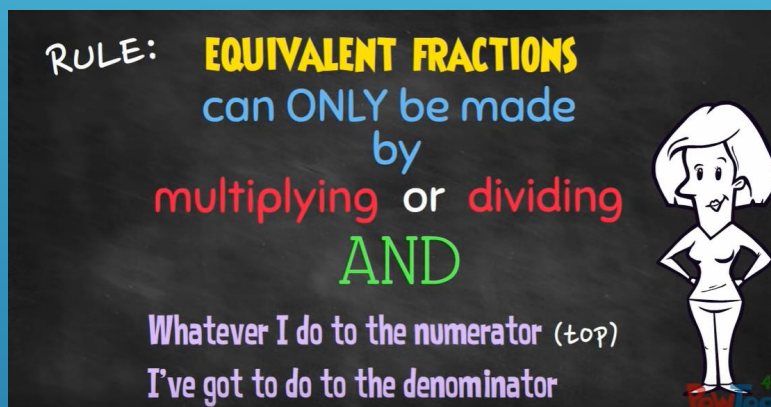
$$\frac{5}{6} = \frac{10}{11}$$

$$\frac{3}{5} = \frac{15}{25}$$

$$\frac{11}{20} = \frac{22}{40}$$

$$\frac{3}{9} = \frac{2}{3}$$

Can you decide whether these statements about equivalent fractions are true or false?



$$\frac{1}{4} = \frac{3}{12} \quad \text{TRUE}$$

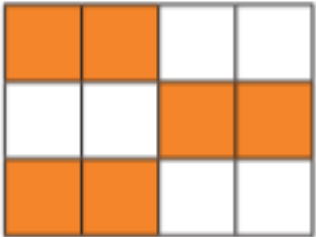
$$\frac{5}{6} = \frac{10}{11} \quad \text{FALSE : } \frac{5}{6} \neq \frac{10}{12}$$

$$\frac{3}{5} = \frac{15}{25} \quad \text{TRUE}$$

$$\frac{11}{20} = \frac{22}{40} \quad \text{TRUE}$$

$$\frac{3}{9} = \frac{2}{3} \quad \text{FALSE: } \frac{3}{9} = \frac{1}{3}$$

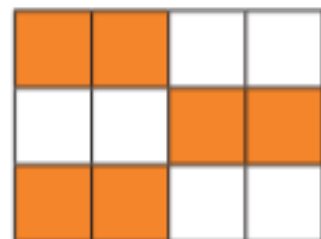
Is the fraction in the table equivalent to $\frac{2}{4}$?
Complete the table.

Fraction	Is it equivalent to $\frac{2}{4}$? ✓ or ✗
a) 	
b) 	
c) 	

Can you complete the table

- 1) Find the fraction of the shape
- 2) Write down both fractions next to each other.
- 3) Can they be formed by multiplying or dividing the numerator and denominator by the same thing?

Is the fraction in the table equivalent to $\frac{2}{4}$?
Complete the table.

Fraction	Is it equivalent to $\frac{2}{4}$? ✓ or ✗
a) 	Yes
b) 	Yes
c) 	Yes

Can you complete the table

- 1) Find the fraction of the shape
- 2) Write down both fractions next to each other.
- 3) Can they be formed by multiplying or dividing the numerator and denominator by the same thing?

Hana, Isla and Fabien all had a bar of chocolate the same size. Hana ate two quarters of her bar of chocolate. Isla ate three sixths of her chocolate and Fabien ate five tenths of his chocolate. Who ate the most?



1) Write down what each child has.

Hana= $\frac{2}{4}$

Isla= $\frac{3}{6}$

Fabien = $\frac{5}{10}$

2) Can you see a pattern between their fractions?

Hana, Isla and Fabien all had a bar of chocolate the same size. Hana ate two quarters of her bar of chocolate. Isla ate three sixths of her chocolate and Fabien ate five tenths of his chocolate. Who ate the most?



1) Write down what each child has.

Hana = $\frac{2}{4}$

Isla = $\frac{3}{6}$

Fabien = $\frac{5}{10}$

2) Can you see a pattern between their fractions?

All of the fractions are equivalent to a half, so they all ate the same amount of chocolate!

- ▶ Continue with the practise questions and then move onto the evidence questions.
 - ▶ The answers have been uploaded so you can self check.
 - ▶ Feel free to send the questions to us if you are feeling proud!
 - ▶ Good luck!
- 
- A series of four parallel white diagonal lines in the bottom right corner of the slide, slanting upwards from left to right.