

Hello!

We hope you and your families are safe and well.

You are required to complete today's work. Please try your very best!

Independent work

Complete your fluency and reasoning and problem solving questions, choose the colour questions you are given in class e.g. red, blue or yellow.

$$1 \times 12 = 12$$

$$2 \times 12 = 24$$

$$3 \times 12 = 36$$

$$4 \times 12 = 48$$

$$5 \times 12 = 60$$

$$6 \times 12 = 72$$

$$7 \times 12 = 84$$

$$8 \times 12 = 96$$

$$9 \times 12 = 108$$

$$10 \times 12 = 120$$

$$11 \times 12 = 132$$

$$12 \times 12 = 144$$

$$12 \div 12 = 1$$

$$24 \div 12 = 2$$

$$36 \div 12 = 3$$

$$48 \div 12 = 4$$

$$60 \div 12 = 5$$

$$72 \div 12 = 6$$

$$84 \div 12 = 7$$

$$96 \div 12 = 8$$

$$108 \div 12 = 9$$




$$120 \div 12 = 10$$

$$132 \div 12 = 11$$

$$144 \div 12 = 12$$

Arithmetic Test

Test 1

1	$987 \div 100$ 	<input data-bbox="2313 375 2374 432" type="text"/> 1 mark
2	343×2 	<input data-bbox="2313 808 2374 865" type="text"/> 1 mark
3	$5.2 \div 0.4$ 	<input data-bbox="2313 1219 2374 1276" type="text"/> 1 mark

18.01.2021

L.O: To identify equivalent Fractions, Decimals and Percentages.

Success Criteria;

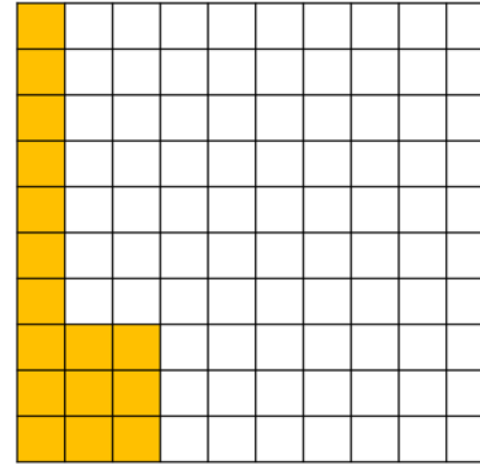
- Use your knowledge of place value
- Understand 'per cent' means 'out of 100'
- Use your knowledge of equivalent decimal, fractions and percentages

Introduction



1a) What percentage of the hundred square is shaded?

b) What fraction on the hundred square is shaded?



2a) What percentage of the bar model is shaded?

b) What fraction of the bar model is shaded?

Introduction

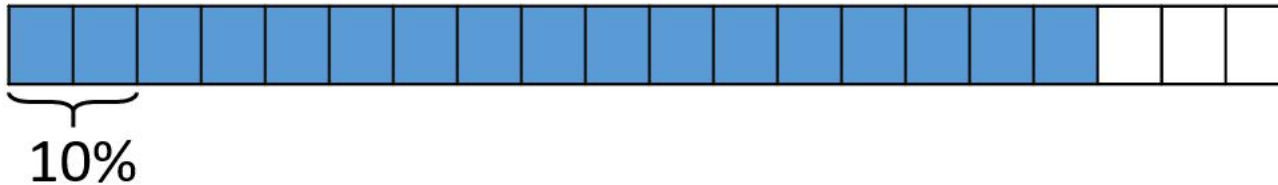
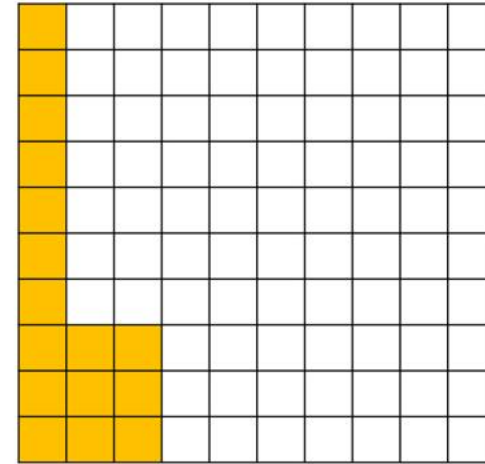


1a) What percentage of the hundred square is shaded?

16 %

b) What fraction on the hundred square is shaded?

$$\frac{16}{100} \quad \frac{4}{25}$$



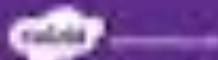
2a) What percentage of the bar model is shaded?

85 %

b) What fraction of the bar model is shaded?

$$\frac{17}{20}$$

Fractions, Decimals and Percentages



Fractions, Decimals and Percentages



Equivalent
Fractions,
Decimals and
Percentages

Fractions, Decimals and Percentages (FDP)

A fraction is made up of two parts: a **numerator** and a **denominator**. It is used to represent how many parts we have out of the total number of parts.

A **decimal** is a way of writing a number that is not **whole**.

The sign % stands for '**per cent**' which means '**out of 100**'.

Watch the short video on equivalent Fractions, decimals and percentages.

<https://www.bbc.co.uk/bitesize/articles/zynhjsg>

Equivalent FDP

Converting percentages into decimals

This has an easy method too - you just divide the **percentage** by 100.

$$17\% \div 100 = 0.17$$

Since you know that **all percentages** relate to a fraction that has a **denominator** of **100**, to turn it into a decimal, you simply divide the numerator by the denominator which is always 100.

So since **59%** is the same as $\frac{59}{100}$, to turn it into a decimal you have to work out $59 \div 100$.

So:

$$59 \div 100 = 0.59$$

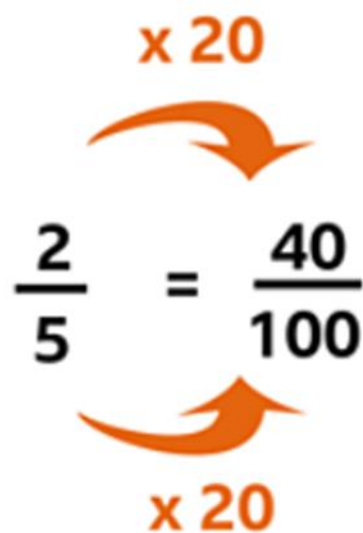
$$\text{Therefore: } 59\% = \frac{59}{100} = 0.59$$

Example 2:

What is $\frac{2}{5}$ as a percentage?

- **Step 1:** Convert $\frac{2}{5}$ into an equivalent fraction with a denominator of 100.
- **Step 2:** Place the numerator 40 next to the per cent symbol.

$$\frac{40}{100} = 40\%$$



The diagram illustrates the conversion of the fraction $\frac{2}{5}$ to an equivalent fraction with a denominator of 100. It shows the equation $\frac{2}{5} = \frac{40}{100}$. An orange curved arrow points from the denominator 5 to the denominator 100, labeled with "x 20". Another orange curved arrow points from the numerator 2 to the numerator 40, also labeled with "x 20".

Match the fraction to its equivalent percentage and decimal.

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

60%

0.25

$$\frac{3}{4}$$

25%

0.6

$$\frac{2}{8}$$

75%

0.4

$$\frac{20}{50}$$

40%

0.75

Match the fraction to its equivalent percentage and decimal.

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

60%

0.25

$$\frac{3}{4}$$

25%

0.6

$$\frac{2}{8}$$

75%

0.4

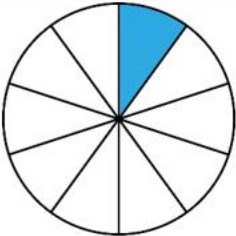
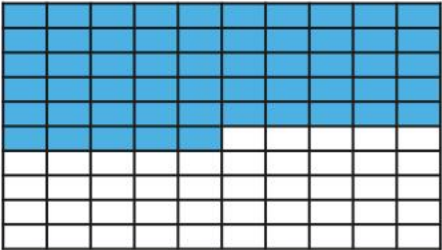
$$\frac{20}{50}$$

40%

0.75


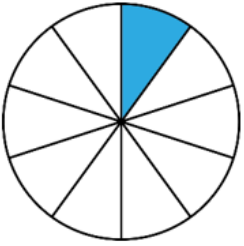
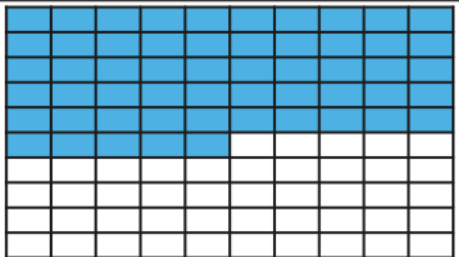


Complete the table showing the correct equivalences between these fraction, decimal and percentage representations. Show each fraction in its simplest form.

Fraction in its Simplest Form	Decimal	Percentage
	<div>0.1 0.1 0.1 0.1</div> <div>0.1</div>	
		
		



Complete the table showing the correct equivalences between these fraction, decimal and percentage representations. Show each fraction in its simplest form.

Fraction in its Simplest Form	Decimal	Percentage
$\frac{1}{2}$		50%
	0.1	10%
$\frac{11}{20}$	0.55	

Reasoning 1

Jaxon says,



If I eat seven eighths of my birthday cake, there will be 0.25, or 25% left.

Do you agree? Prove it.

Reasoning 1

Jaxon says,



If I eat seven eighths of my birthday cake, there will be 0.25, or 25% left.

Do you agree? Prove it.

No, because if Jaxon eats seven eighths there will be one eighth left. One eighth is equivalent to 0.125 and 12.5%.

Problem Solving 1

Ethan scored 62.5% on his Science test.

Felix got $\frac{7}{8}$ of his answers correct.

Jaiden expresses her result as a decimal, which is 0.75.

Who scored the highest?

Show your working.

Problem Solving 1

Ethan scored 62.5% on his Science test.

Felix got $\frac{7}{8}$ of his answers correct.

Jaiden expresses her result as a decimal, which is 0.75.

Who scored the highest?

Show your working.

$$\text{Ethan: } 62.5\% = 0.625 = \frac{5}{8}$$

$$\text{Felix: } \frac{7}{8} = 0.875 = 87.5\%$$

$$\text{Jaiden: } 0.75 = 75\% = \frac{3}{4}$$

Felix scored the highest.



Main Activity

Complete the worksheet- converting fractions to percentages.

Complete the RPS worksheet (slide 16, 17 or 18) you are normally given in class- red, blue or yellow.

- 1) Complete the table showing the correct equivalences between these fraction, decimal and percentage representations. Show each fraction in its simplest form.



Fraction in Its Simplest Form	Decimal	Percentage
	<div> <div>0.1</div> <div>0.1</div> <div>0.1</div> <div>0.01</div> <div>0.01</div> <div>0.01</div> </div>	
	<div>0.01</div>	

Equivalent FDPEquivalent FDP

1a. Maia says,



If I give 25% of my sweets to friends, there will be half, or 0.5 left.

Do you agree?

Explain why.



R

1b. Frankie says,



If I give three tenths of my sweets to friends, there will be 70% or 0.7 left.

Do you agree?

Explain why.



R

2a. Kim ate 50% of her pizza.

Jane ate $\frac{7}{10}$ of her pizza.

Lucy ate 0.6 of her pizza.

Who ate the most of their pizza?

Show your working out.



PS

2b. Nile ate 75% of his pizza.

Max ate $\frac{3}{4}$ of his pizza.

James ate 0.7 of his pizza.

Who ate the most of their pizza?

Show your working out.

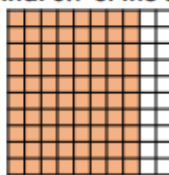


PS

3a. Morgan thinks that 80% of the squares are shaded.

Simone thinks that $\frac{3}{4}$ of the squares are shaded.

Grace thinks that 0.9 of the squares are shaded.



Who is correct? Explain your answer.

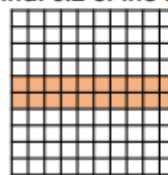


R

3b. Ellie thinks that 30% of the squares are shaded.

Becky thinks that $\frac{1}{4}$ of the squares are shaded.

Kelly thinks that 0.2 of the squares are shaded.



Who is correct? Explain your answer



R

Equivalent FDP

Equivalent FDP

4a. Millie says,



If I eat 60% of my birthday cake, there will be three fifths, or 0.6 left.

Do you agree?

Explain why.



4b. Saad says,



If I eat 0.625 of my birthday cake, there will be three eighths, or 37.5% left.

Do you agree?

Explain why.



5a. Joshua scored 75% on his Maths test.

Briony got $\frac{3}{5}$ of her answers correct.

Verity expresses her result as a decimal, which is 0.8.

Who scored the highest?

Show your working out.



5b. Will scored 60% on his English test.

Kate got $\frac{5}{8}$ of her answers correct.

Holly expresses her result as a decimal, which is 0.6.

Who scored the highest?

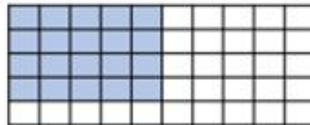
Show your working out.



6a. Theo thinks that 20% of the squares are shaded.

Mia thinks that $\frac{2}{5}$ of the squares are shaded.

Jasmine thinks that 0.4 of the squares are shaded.



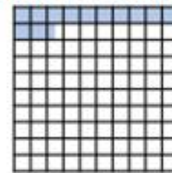
Who is correct? Explain your answer.



6b. Connie thinks that 12.5% of the squares are shaded.

George thinks that $\frac{3}{8}$ of the squares are shaded.

Alice thinks that 0.1 of the squares are shaded.



Who is correct? Explain your answer



Equivalent FDPEquivalent FDP

7a. Safeeyah says,



Six fortieths of my cake has been eaten so there is 0.85 or 85% left.

Do you agree?

Explain why.



7b. Jacob says,



Fourteen sixteenths of my cake has been eaten so there is 0.25 or 25% left.

Do you agree?

Explain why.



8a. Jack scored 60% on his music exam.

Scarlett scored 26 out of 40.

Isaac expresses his result as a decimal, which is 0.65.

Who scored the highest?

Show your working out.



8b. Megan scored 85% on her tap exam.

Nate scored 14 out of 16.

Mo expresses his result as a decimal, which is 0.875.

Who scored the highest?

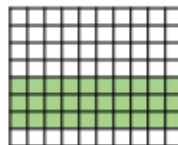
Show your working out.



9a. James thinks that 30% of the squares are shaded.

Sam thinks that $\frac{3}{10}$ of the squares are shaded.

Adam thinks that 0.375 of the squares are shaded.



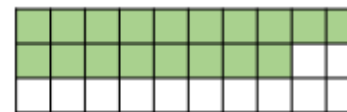
Who is correct? Explain your answer.



9b. Isla thinks that 70% of the squares are shaded.

Ellie thinks that $\frac{9}{15}$ of the squares are shaded.

Hafsa thinks that 0.6 of the squares are shaded.



Who is correct? Explain your answer



Plenary

True or False ?

Equivalent FDP

$$0.7 = 7\%$$

Plenary

True or False ?

Equivalent FDP

False

$$0.7 = \frac{7}{10} = \frac{70}{100} = 70\%$$

**Email your finished work
to your class teacher!**

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