

Maths

Percentages

Monday

Activity 1

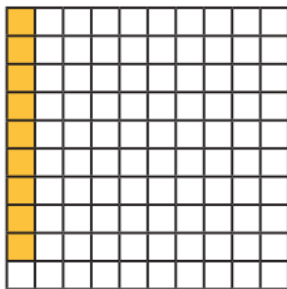
It is important to understand that a percentage is the number of parts per 100 (cent = 100)

Complete the sentence for each diagram.

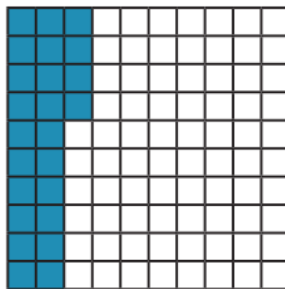
There are parts out of a hundred shaded.

This is %.

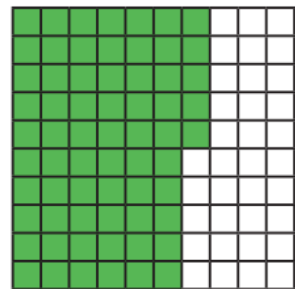
a)



b)



c)



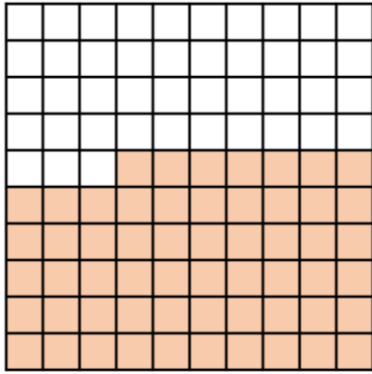
Complete the table.

Hundred square	Percentage

Activity 2

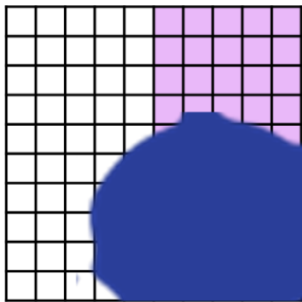
True or False?

53% of the grid is shaded.



Extension:

Oh no! Dexter has spilt ink on his hundred square.



Complete the sentence stems to describe what percentage is shaded.

It could be...

It must be...

It can't be...

Tuesday

Activity 1

Finding percentages of amounts

To find 10%, you divide the number by 10

To find 20%, first find 10% then times the answer by 2

To find 30%, first find 10% then times the answer by 3

(some of your answers might be decimals!)

You get the idea!

	10%	20%	50%	70%	90%
160	16	32	80	112	144
420					
340					
680					
126					
248					

Extension:

Dora and Amir each have 100 sweets.

Dora eats 60% of hers.

Amir has 35 sweets left.

Who has more sweets left?

Wednesday

Activity 1

To find 5% you find 10% and then divide by 2

For example:

10% of 160 is 16

16 divided by 2 = 8

To find 1% you divide the whole number by 100

	5%	1%
160	8	1.6
420		
340		
680		
124		
248		

Activity 2

Now you can do those, we can combine the methods to find other percentage amounts.

For example, to find 35% you find 30% and then 5% and add the answers together.

So: 35% of 180

10% = 18

5% = 9

30% = 54

54 + 9 = 63

It's the same idea for other amounts like 37%

Find 30%

Then find 1% and multiply it by 7 to get 7%

Then add your answers together.

So: 37% of 180

30% = 54

1% is 1.8

1.8 x 7 = 12.6

12.6 + 54 = 66.6

Work these out:

1. 25% of 860
2. 65% of 740
3. 23% of 620
4. 75% of 260
5. 84% of 340

Extension:

Mo, Annie and Tommy all did a test with 100 questions. Tommy got 6 fewer questions correct than Mo.

Name	Score	Percentage
Mo	56 out of 100	
Annie		65%
Tommy		

Complete the table.

How many more marks did each child need to score 100%?

Dora and Amir each have 100 sweets. Dora eats 65% of hers. Amir has 35 sweets left.

Who has more sweets left?

Thursday

Activity 1

There are some percentages that you just need to know the equivalent decimal and fraction for. Can you work out what they would be?

Use these videos to help you.

<https://www.bbc.co.uk/teach/class-clips-video/maths-ks2-decimal-dance-off-1-structure-of-fractions-decimals-and-percentages/z6x8qp3>

<https://www.bbc.co.uk/teach/class-clips-video/maths-ks2-decimal-dance-off-2-fractions-decimals-and-percentages/zk9ygwX>

Percentage	Fraction	Decimal
10%	1/10	0.1
50%		
	1/4	
	1/5	
		0.75

Activity 2

A percentage is always out of 100 parts. So, when converting between fractions and percentages, it helps to make the denominator 100.

For example:

$$4/20$$

20 goes into 100 5 times, so you have to multiply the numerator by the same amount.

$$4 \times 5 = 20$$

Your new fraction becomes 20/100.

$$\text{And so, } 4/20 = 20\%$$

Numbers with 2 decimal places are easy to convert to percentages because you just divide the number by 100.

So, 20% or 4/20 is the same as 0.2 (you don't need to put 0.20 because the 0 isn't needed)

Complete the fraction, decimal and percentage equivalents.

a) $32\% = \frac{\boxed{}}{100} = \boxed{}$

$$35\% = \frac{\boxed{}}{100} = \boxed{}$$

$$48\% = \frac{\boxed{}}{100} = \boxed{}$$

c) $0.29 = \boxed{}\% = \frac{\boxed{}}{100}$

$$0.71 = \boxed{}\% = \frac{\boxed{}}{100}$$

$$0.03 = \boxed{}\% = \frac{\boxed{}}{100}$$

b) $\frac{17}{100} = \boxed{}\% = \boxed{}$

$$\frac{9}{100} = \boxed{}\% = \boxed{}$$

$$\frac{90}{100} = \boxed{}\% = \boxed{}$$

Extension: Write <, > or = to complete the statements.

a) $50\% \bigcirc \frac{5}{100}$

d) $\frac{40}{100} \bigcirc 40\%$

b) $25\% \bigcirc \frac{50}{100}$

e) $\frac{70}{100} \bigcirc 7\%$

c) $14\% \bigcirc \frac{41}{100}$

f) $82\% \bigcirc \frac{82}{100}$

Friday

Activity 1

Write the values in order from smallest to greatest.

a) 33% $\frac{30}{100}$ 3% $\frac{13}{100}$

b) 299% $\frac{91}{100}$ 9% $\frac{9}{10}$

c) 2.5 $\frac{25}{100}$ 250 25% of 100 $\frac{25}{1000}$

You will need to convert them to the same form. It is sometimes considered easier to make them percentages.

Activity 2

Sort the fractions, decimals and percentages into the correct column.

50% 100% $\frac{30}{60}$

Seven tenths 60% 0.25

70 hundredths $\frac{1}{4}$ 7%

Less than $\frac{1}{2}$	Equal to $\frac{1}{2}$	Greater than $\frac{1}{2}$

Extension:

Teddy says,



To convert a fraction to a percentage, you just need to put a percent sign next to the numerator.

Is Teddy correct? Explain your answer.

At a cinema, $\frac{4}{10}$ of the audience are adults.

The rest of the audience is made up of boys and girls.

There are twice as many girls as boys.

What percentage of the audience are girls?