






Steps to Success

Date	25.01.21
Subject/s	Maths
Learning Objective  	To understand percentages

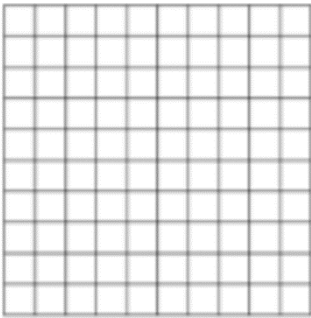
SA 	TA 
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Success Criteria 	I know percent means out of a hundred		
	I can show percentages in diagrams		
	I can begin to make links between fractions, decimals and percentages		
Support	Independent	Adult Support ()	Group Work

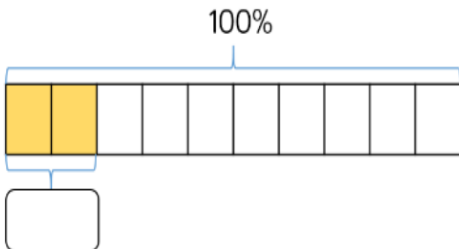
Lockdown learning: DC

Pre-task

1) Show 31% on this image



2) What percentage does the bar model show?



Teacher led

Fluency

Teacher led:

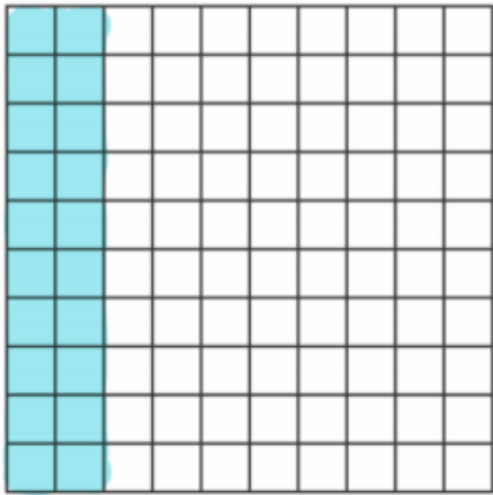
Percentage



per means
out of



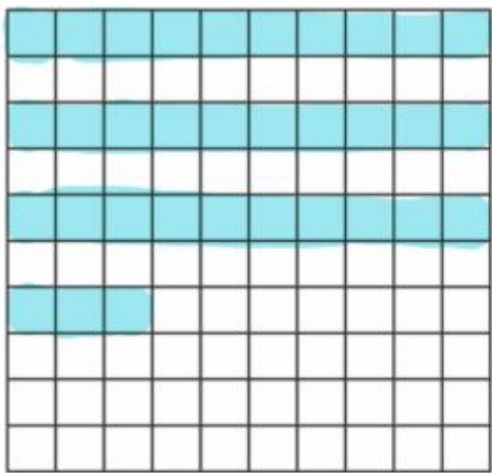
cent means
one hundred



How many parts out of 100 have been shaded?

There are 20 out of 100.

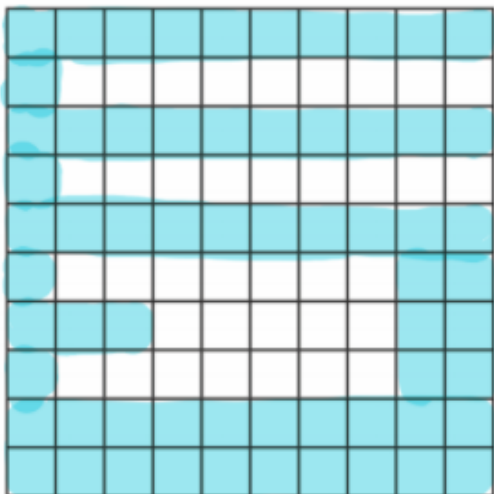
This is 20 %.



How many parts out of 100 have been shaded?

There are 33 out of 100

This is 33 %.



How many parts out of 100 have been shaded?

There are 63 out of 100.

This is 63 %.

1) 63 out of 100 = 63 %

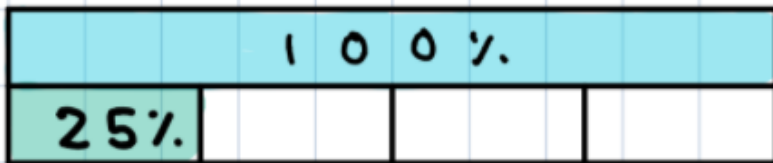
2) 29 out of 100 = 29 %

3) 5 out of 100 = 5 %



$$100 \div 2 = 50$$

What is the value of the green section?
50%.



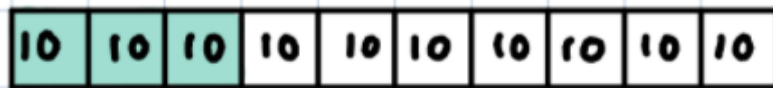
$$100 \div 4 = 25$$

Now what is the value?



$$100 \div 4 = 25$$

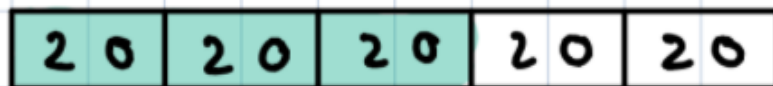
$$25 \times 3 = 75$$



30%

$$100 \div \frac{10}{10} = 10$$

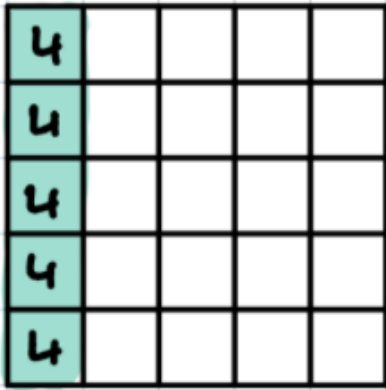
$$\frac{10}{10} \times 3 = 30$$



60%

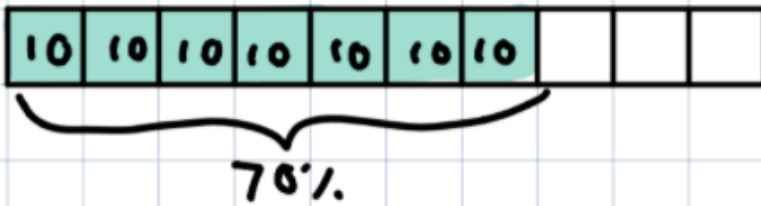
$$100 \div \frac{5}{20} = 20$$

$$\frac{20}{5} \times 3 = 60$$



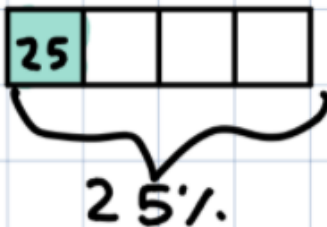
$$100 \div 25 = 4$$

$$4 \times 5 = 20\%$$



$$100\% \div 10 = 10$$

$$10 \times 7 = 70\%$$

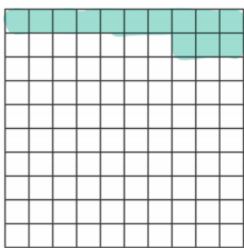


$$100 \div 4 = 25$$

$$25 \times 1 = 25$$

Remember:

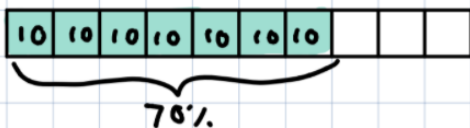
If you have 100 squares, count how many are shaded and that's your percentage.



$$= \frac{13 \text{ parts out of } 100}{100} = 13\%$$

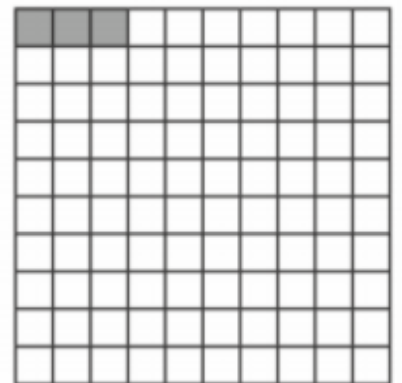
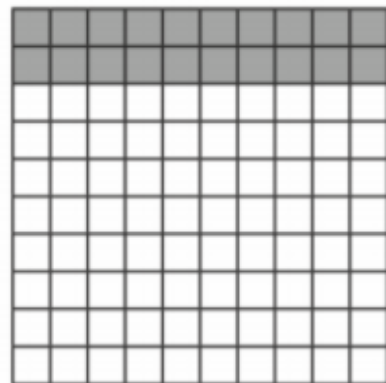
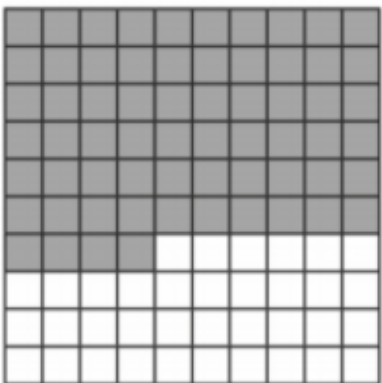
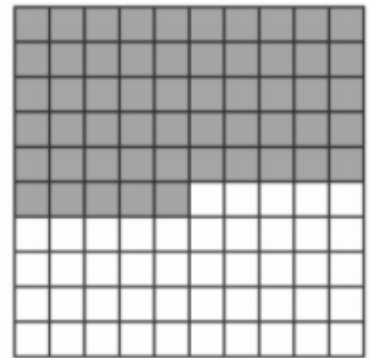
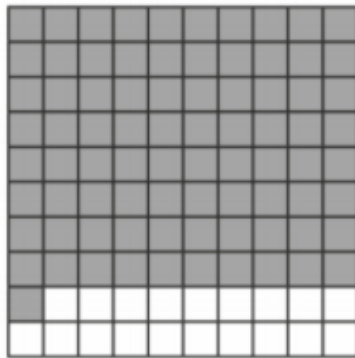
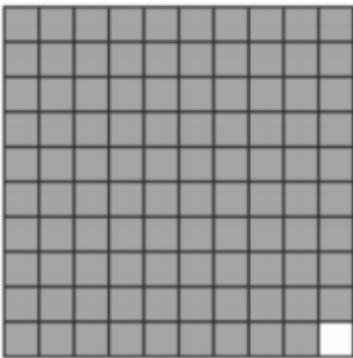
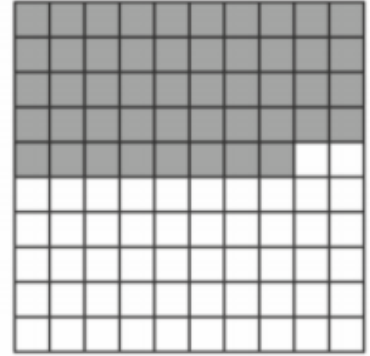
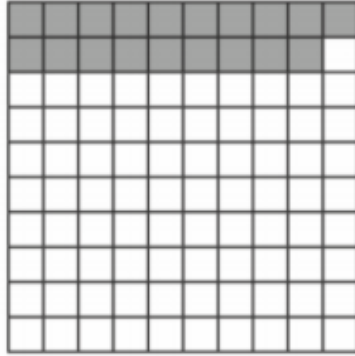
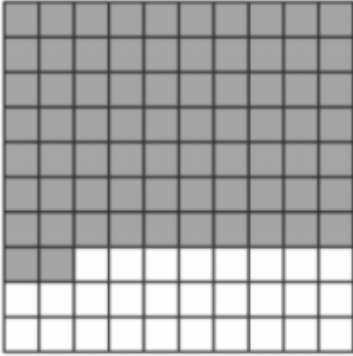
① If you don't have 100 squares, you must divide 100 by how many parts you have. ① $100 \div 10 = 10$

② Then multiply your answer by how many are shaded. ② $10 \times 7 = 70$



Fluency A

Write the percentage represented by the following:



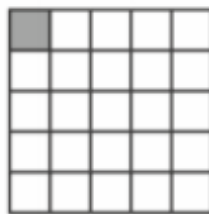
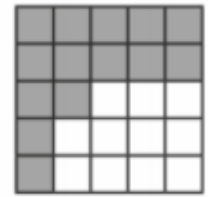
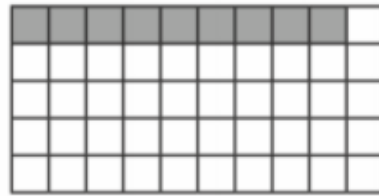
Fluency B

Key facts:

$$100 \div 4 = 25 \quad 100 \div 5 = 20$$

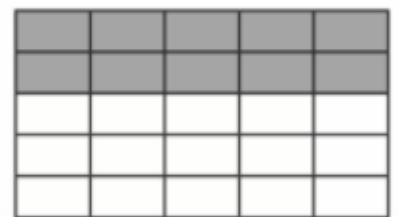
$$100 \div 50 = 2 \quad 100 \div 20 = 5$$

$$100 \div 25 = 4$$



Fluency C.

Write the percentage represented by the following:



Problem solving and reasoning:

Use it!



Max, Isla and Ethan all did a test with 100 questions.

- Ethan got 6 less questions correct than Max.

Name	Score	Percentage
Max	56 out of 100	
Isla		65%
Ethan		

Can you complete the table?
How many more marks did each child need to get 100%?

Use it!



Jenny and Gurpreet each have 100 sweets.

Jenny eats 65% of hers. Gurpreet has 35 sweets left.

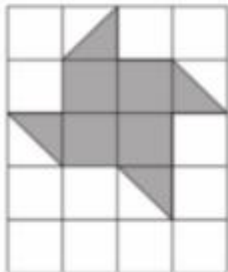
Who has more sweets left?

Further Challenge:

5. Here is a grid of 20 squares.

What percentage of the grid is shaded?

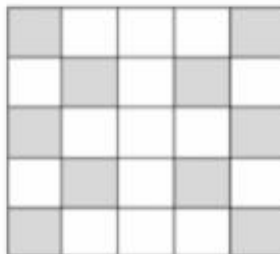




6. Here is a pattern on a grid.

What percentage of the grid is shaded?





Fluency answers:

A:

- 1) 72%
- 2) 19%
- 3) 48%
- 4) 99%
- 5) 81%
- 6) 55%
- 7) 64%
- 8) 20%
- 9) 3%

B:

- 1) 75%
- 2) 18%
- 3) 40%
- 4) 35%
- 5) 85%
- 6) 56%
- 7) 25%
- 8) 25%
- 9) 50%

C:

- 1) 50%
- 2) 10%
- 3) 70%
- 4) 40%
- 5) 80%
- 6) 50%
- 7) 25%
- 8) 75%
- 9) 40%

Problem solving and reasoning:

Answers:

Use it!



Max, Isla and Ethan all did a test with 100 questions.

- Ethan got 6 less questions correct than Max.

Name	Score	Percentage
Max	56 out of 100	
Isla		65%
Ethan		

Can you complete the table?
How many more marks did each child need to get 100%?

Name	Score	Percentage
Max	56 out of 100	56%
Isla	65 out of 100	65%
Ethan	50 out of 100	50%

Max needs 44 marks.

Isla needs 35 marks

Ethan needs 50 marks

Use it!



Jenny and Gurpreet each have 100 sweets.
Jenny eats 65% of hers. Gurpreet has 35 sweets left.
Who has more sweets left?

Neither. They have the same.

Further challenge:

30% and 50%