Steps to Success

Date	**01.02.21**
Subject/s	**Maths**
Learning Objective	To find the whole amount using percentages

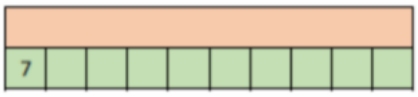
		SA	TA
Success Criteria	I know 100% is a whole		
	I can show the information I know in a bar model		
	I can multiply the information I know by how many parts are in a whole e.g. 10% x 10 = 100%		
Support	Independent Adult Support ( ) Group Work		

Lockdown learning: DC

Pre-task

If 7 is 10% of a number, what is the number?

Use the bar model to help you.



Complete:
Use a bar model to help you if you need.

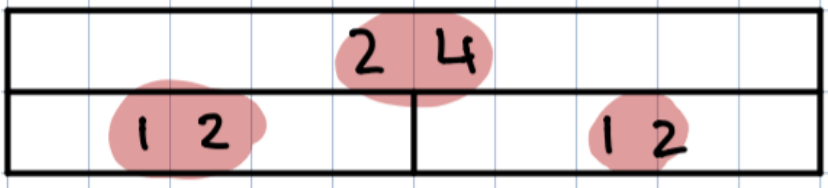
10% of ☐ = 15 ☐ % of 150 = 45

30% of ☐ = 90 30% of ☐ = 900

Teacher led Fluency

Teacher led:

If 12 is 50% what is the number?



Draw a bar model to help.

12 x 2 = 24.

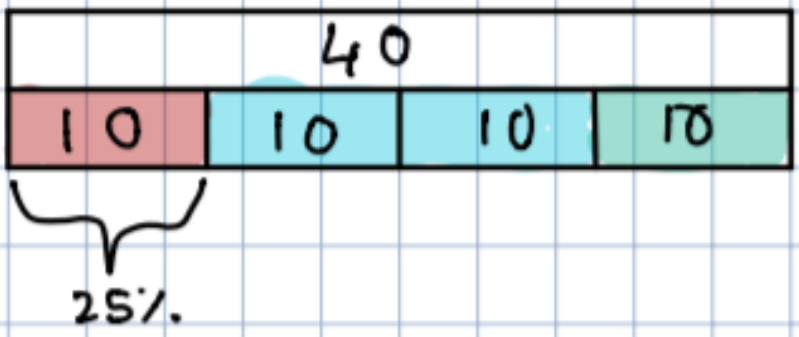
2) There are a bag of marbles.

50%. are blue.

25%. are red. 10 red marbles

The rest are green.

How many marbles altogether?



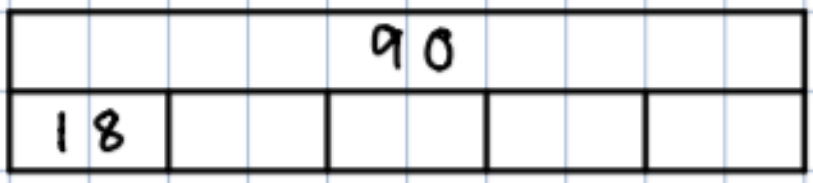
3) There are 16 girls in the choir. They are 40% of the choir. How many are boys?

16 ÷ 4 = 4

40

4) 20% of an amount is 18.

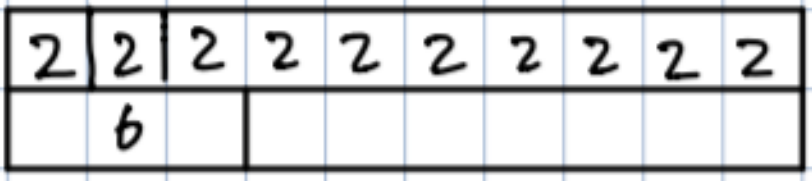
How much is the total?



$$\begin{array}{r} {\scriptstyle 4} \\ 18 \\ \times \quad 5 \\ \hline 90 \end{array}$$

$18 \times 5 = 90$

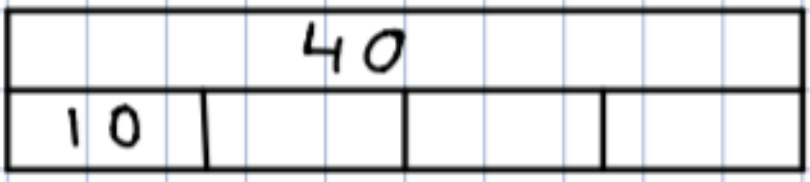
5) Frank ate 6 apples. There is 70% left in the bag.



$= 20$

$6 \div 3 = 2$.

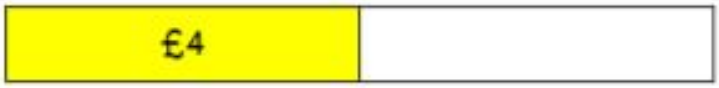
6) Alice spent £10 and has 75% left.



$10 \times 4 = 40$

Finding the Whole Amount when a Fraction of the Amount is Given (RED)

1. $\frac{1}{2}$ of an amount is £4. How much is the whole amount?

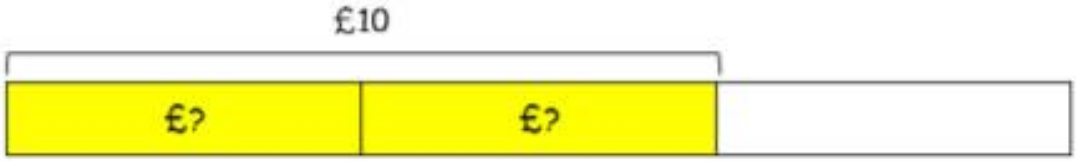


Answer: The whole amount is _____.

2. $\frac{1}{3}$ of an amount is £9. How much is the whole amount?

Answer: The whole amount is _____.

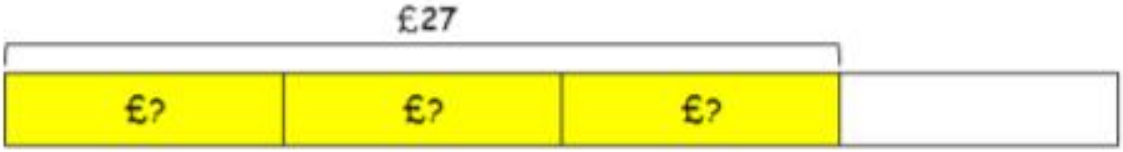
3. $\frac{2}{3}$ of an amount is £10. How much is the whole amount?



If $\frac{2}{3}$ is £10, then $\frac{1}{3}$ is £10 ÷ _____ = £_____.

Answer: If $\frac{1}{3}$ is £_____, then the whole amount is _____.

4. $\frac{3}{4}$ of an amount is £27. How much is the whole amount?



If $\frac{3}{4}$ is £27, then $\frac{1}{4}$ is £27 ÷ _____ = £_____.

Answer: If $\frac{1}{4}$ is £_____, then the whole amount is _____.

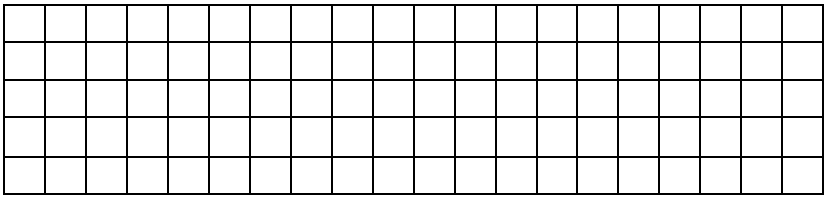
5. $\frac{2}{5}$ of an amount is £14. How much is the whole amount?

If $\frac{2}{5}$ is £14, then $\frac{1}{5}$ is £14 ÷ _____ = £_____.

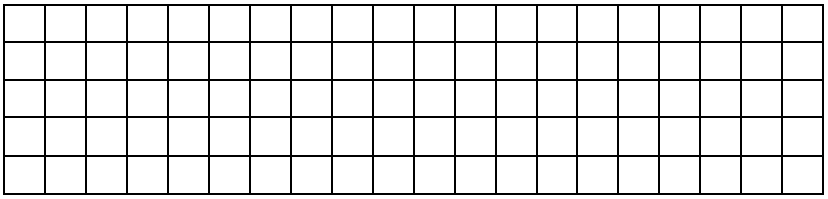
Answer: If $\frac{1}{5}$ is £_____, then the whole amount is _____.

Fluency B

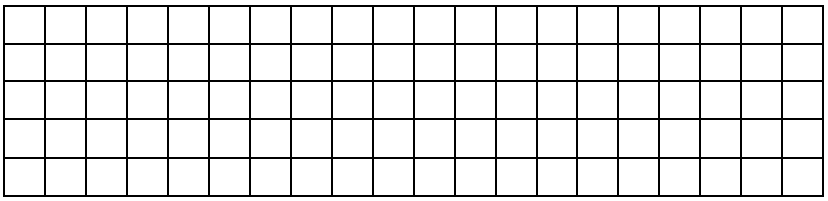
1) 50% of an amount is £8. How much is the whole amount?



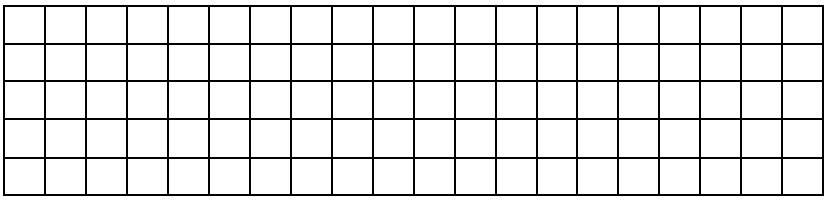
2) 25% of an amount is 60ml. How much is the whole amount?



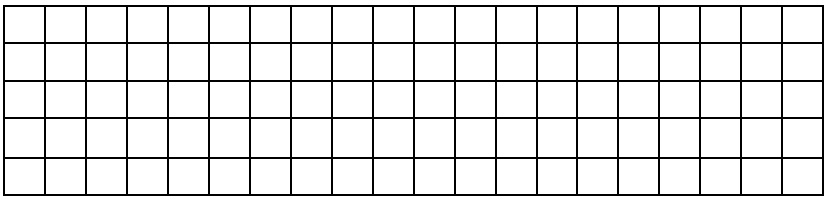
3) 60% of an amount is 30. How much is the whole amount?



4) 75% is 45. How much is the whole amount?



5) 90% is 180. How much is the whole amount?



Problem Solving and Reasoning

Use it!

Explain it!

A golf club has 200 members.

58% of the members are male.
50% of the female members are children.

(a) How many male members are in the golf club?
(b) How many female children are in the golf club?

Use it!

350,000 people visited the Natural History Museum last week.
15% of people visited on Monday.
40% of people visited on Saturday.
How many people visited the Natural History Museum the rest of the week?

Use it!

What percentage questions can you ask about this bar model?

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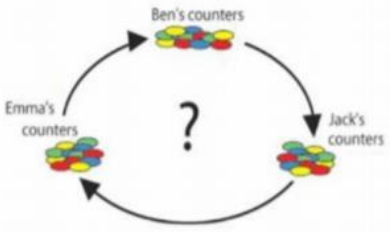
Further Challenge

Ben, Jack and Emma were playing a game with a box of 40 counters - they were not using all of them.
They each had a small pile of counters in front of them.



All at the same time, Ben passed a third of his counters to Jack, Jack passed 25% of his counters to Emma, and Emma passed a 10% of her counters to Ben.

They all passed on more than one counter.

After this they all had the same number of counters.

How many could each of them have started with?