## Find the whole when given a fraction of an amount

Maths

Mr Chan

## Find the whole when given a fraction of an amount

1. Use the bar model to increase to find the original number given that $\frac{3}{7}$ of a number is 15

2. Mark is told that $\frac{2}{5}$ of a number is 30 .

He is asked to work out the number.
Here is his working out.

$$
\begin{gathered}
30 \div 5=6 \\
2 \times 6=12
\end{gathered}
$$

What mistakes has he made?

What is the correct answer?

## Find the whole when given a fraction of an amount

3. Work out the numbers for the following.
a) $\frac{2}{3}$ of a number is 21
b) $\frac{3}{7}$ of a number is 21
c) $\frac{7}{10}$ of a number is 35
d) $\frac{5}{6}$ of a number is 60
4. Amir has found the same shirt on two different websites.

GetShirty.com
Special offer: $\frac{2}{5}$ off normal price. Sale price $£ 36$

$$
\begin{aligned}
& \begin{array}{c}
\text { ShirtsUK.com } \\
\text { Special offer: } \frac{3}{7} \text { off normal price. } \\
\text { Sale price } £ 32
\end{array} \\
& \text { In which store was the original } \\
& \text { amount the most expensive? }
\end{aligned}
$$

Answers

## Find the whole when given a fraction of an amount

1. Use the bar model to increase to find the original number given that $\frac{3}{7}$ of a number is 15

2. Mark is told that $\frac{2}{5}$ of a number is 30 .

He is asked to work out the number.
Here is his working out.

$$
\begin{gathered}
30 \div 5=6 \\
2 \times 6=12
\end{gathered}
$$

What mistakes has he made? He should have divided by the numerator to get one part equal to 15

What is the correct answer? 75

## Find the whole when given a fraction of an amount

3. Work out the numbers for the following.
a) $\frac{2}{3}$ of a number is $21 \quad 31.5$
b) $\frac{3}{7}$ of a number is $21 \quad 49$
c) $\frac{7}{10}$ of a number is $35 \quad 50$
d) $\frac{5}{6}$ of a number is $60 \quad 72$
4. Amir has found the same shirt on two different websites.

## GetShirts

Special Offer: 2/5 off the normal price Sale price $£ 36$

## ShirtsUK

Special Offer: 3/7 off the normal price Sale price $£ \mathbf{3} 2$

In which store was the original amount the most expensive?

$$
\begin{aligned}
& \text { GetShirts }=£ 60 \text { (most expensive) } \\
& \text { ShirtsUK = } £ 56
\end{aligned}
$$

