Solve one-step linear equations involving ×/÷ using inverse operations

1 **a)** Complete the fact family for the bar model.

51		
b	b	b

$b \times$ 3 $= 51$

$3 \times$ b $= 51$

$51 \div$ b $= 3$

$51 \div$ 3 $= b$ ✓

b) Which fact will help you work out the value of b?

Tick your answer.

c) Work out the value of b.

$b =$ 17

2 **a)** Write the fact family for the bar model.

a	a	a	a
30			

$a \times 4 = 30$

$4 \times a = 30$

$30 \div 4 = a$

$30 \div a = 4$

b) What is the value of a?

$a =$ 7·5

3 **a)** Draw a bar model to illustrate $5c = 105$

b) Write the fact family for your bar model.

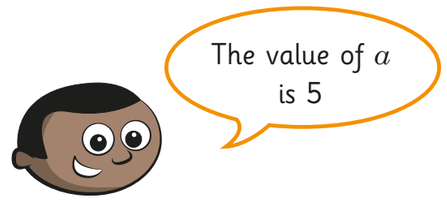
$5 \times c = 105$ $\quad 105 \div 5 = c$

$c \times 5 = 105$ $\quad 105 \div c = 5$

c) What is the value of c?

$c =$ 15

4 Mo is solving the equation $10a = 2$



Explain why Mo is wrong.

$10 \times 5 = 50 \neq 2$

What is the correct value of a?

$a =$ 0·2

5 Solve the equations.

a) $4g = 24$

$g =$ 6

b) $186 = 5h$

$h =$ 37·2

c) $6k = 19.8$

$k =$ 3·3

d) $6 = 20p$

$p =$ $\frac{3}{10}$

6 Teddy is solving the equation $4a = 3{,}824$

He thinks the value of a is 1,412

a) Without solving the equation, explain why Teddy is incorrect.

1,412 x 4 > 4,000

b) What is the value of a?

$a =$ 956

7 Circle the calculation you can use to find out the value of e.

e			
7	7	7	7

$\frac{e}{4} = 7$ 4 x 7 = e

8 Amir and Ron are solving the equation $\frac{a}{3} = 30$

Amir thinks the value of a is 90

Ron thinks the value of a is 10

Who is correct? Amir

Explain your answer.

90 ÷ 3 = 30

9 Solve the equations.

a) $\frac{n}{4} = 12$

$n =$ 48

b) $10 = \frac{m}{15}$

$m =$ 150

c) $\frac{27}{p} = 9$

$p =$ 3

d) $7 = \frac{210}{y}$

$y =$ 30

10 What is the same and what is different about these equations?

$\frac{n}{10} = 5$ $\frac{10}{n} = 5$