

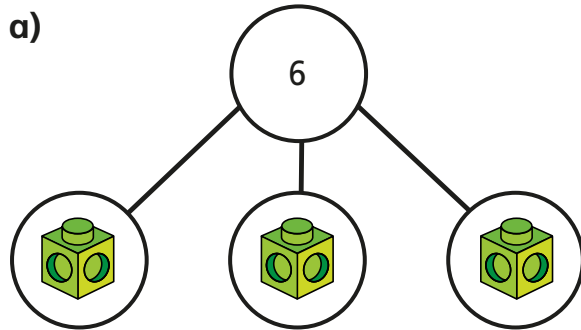
Solve simple one-step equations



- 1 Write an equation for each part-whole model.

Work out the value of the multilink cube in each equation.

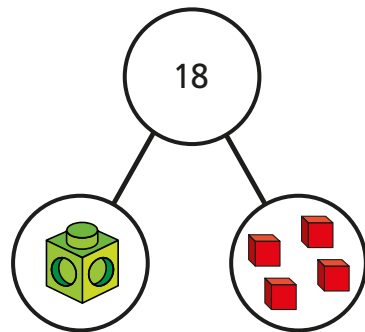
a)



$$3x = 6$$

$$\text{cube} = 2$$

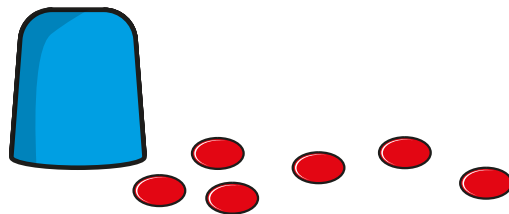
b)



$$x + 4 = 18$$

$$\text{cube} = 14$$

- 2 There are some counters under the cup.



There are 10 counters in total.

- a) If c is the number of counters under the cup, explain why

$$c + 6 = 10$$

- b) Work out the value of c .

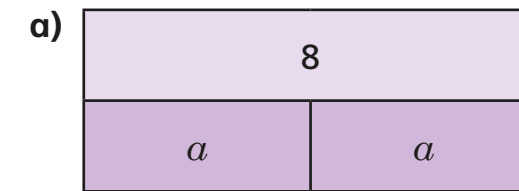
$$c = 4$$

- c) How many counters are under the cup?

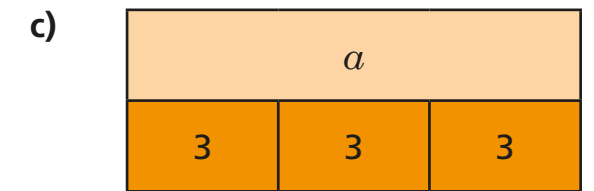
$$4$$

- 3 Write algebraic equations to represent the bar models.

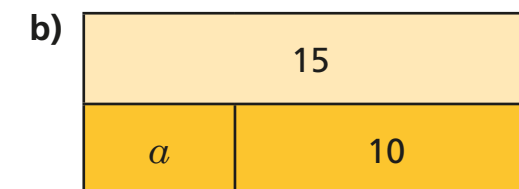
Find the value of a in each one.



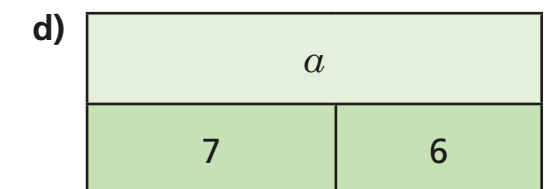
$$a = 4$$



$$a = 9$$



$$a = 5$$



$$a = 13$$

- 4 Nijah is solving the equation $x - 8 = 20$

$$\begin{aligned} x - 8 &= 20 \\ x &= 20 - 8 \\ x &= 12 \end{aligned}$$

What mistake has Nijah made?

She should have added 8 to 20

$$x = 28$$

5 Solve the equations.

a) $x + 7 = 20$

$x = \boxed{13}$

d) $g - 3 = 15$

$g = \boxed{18}$

b) $10y = 80$

$y = \boxed{8}$

e) $32 = t - 5$

$t = \boxed{37}$

c) $4m = 22$

$m = \boxed{5.5}$

f) $\frac{u}{6} = 3$

$u = \boxed{18}$

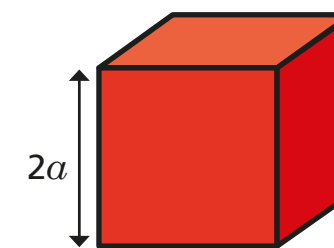
6 Filip thinks of a number.
He subtracts 5 from his number.
He ends up with 10
Write an algebraic equation to represent Filip's problem.

$x - 5 = 10$

Solve the equation to work out his number.

$\boxed{15}$

7 Dexter builds a tower.
Each block is $2a$ high.
He uses 7 blocks.



The total height of his tower is 42 cm.
Write an equation to represent the height of Dexter's tower and find the value of a .

$14a = 42$

$a = \boxed{3}$ cm

8 Work out the value of each shape.
Write the equations that you solved to find the value of each shape.

★	♥	★	♥	
★	▲	★	★	
♥	♥	♥	♥	= 40
▲	★	♥	▲	= 20
				32

♥ = $\boxed{10}$

★ = $\boxed{6}$

▲ = $\boxed{2}$

Work out the missing total of each row and column.
Compare answers with a partner.

