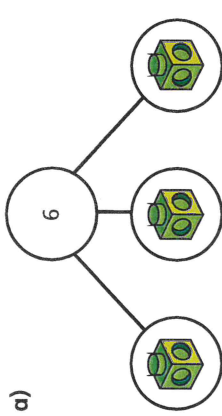

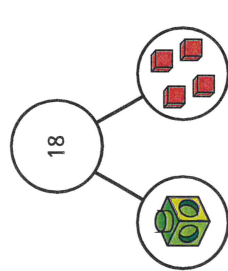



# Solve simple one-step equations

1 Write an equation for each part-whole model.

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

a)  \_\_\_\_\_ =  = 2

b)  \_\_\_\_\_ =  = 14

2 There are some counters under the cup.



There are 10 counters in total.

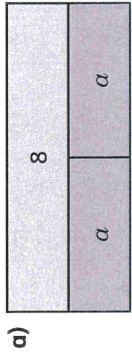
a) If  $c$  is the number of counters under the cup, explain why

$$c + 6 = 10$$

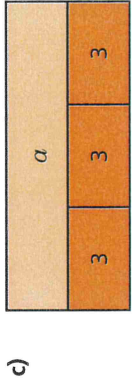
- b) Work out the value of  $c$ . 4 4
- c) How many counters are under the cup? 4

3 Write algebraic equations to represent the bar models.

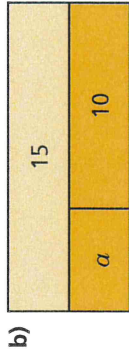
Find the value of  $a$  in each one.



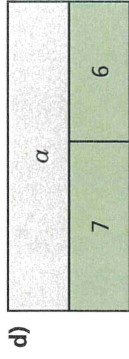
$$a = \boxed{4}$$



$$a = \boxed{9}$$



$$a = \boxed{5}$$



$$a = \boxed{13}$$

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

$$x - 8 = 20$$

$$x = 20 - 8$$

$$x = 12$$

What mistake has Nijah made?

$x = 20 + 8$ , not  $20 - 8$   
 so  $x = 28$

5 Solve the equations.

a)  $x + 7 = 20$

$x = 13$

d)  $g - 3 = 15$

$g = 18$

b)  $10y = 80$

$y = 8$

e)  $32 = t - 5$

$t = 37$

c)  $4m = 22$

$m = 5.5$

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

$u = 18$

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.

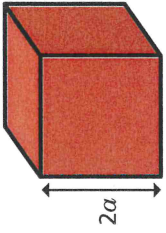
$15$

7

Dexter builds a tower.

Each block is  $2\alpha$  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  $\alpha$ .

$42 \text{ cm} = 7 \times 2\alpha$

$\alpha = 3 \text{ cm}$

8

Work out the value of each shape.

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

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

♥ = 10

★ = 6

▲ = 2

Work out the missing total of each row and column.

Compare answers with a partner.

