

# 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)

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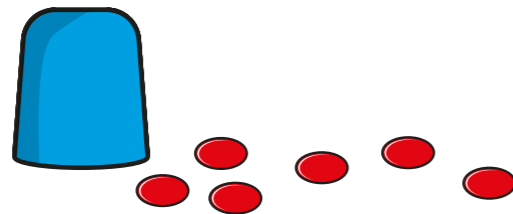
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b)

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2 There are some counters under the cup.



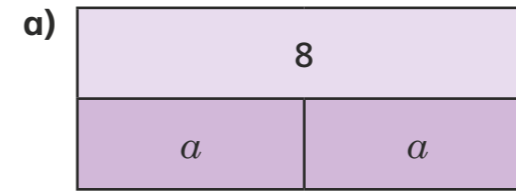
There are 10 counters in total.

- a) If  $c$  is the number of counters under the cup, explain why  $c + 6 = 10$
- b) Work out the value of  $c$ .  $c =$
- c) How many counters are under the cup?

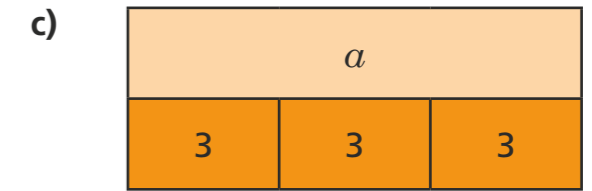


3 Write algebraic equations to represent the bar models.

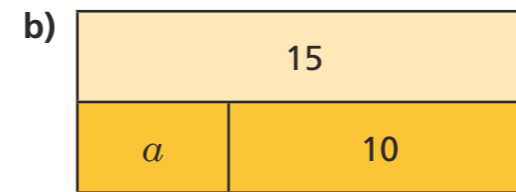
Find the value of  $a$  in each one.



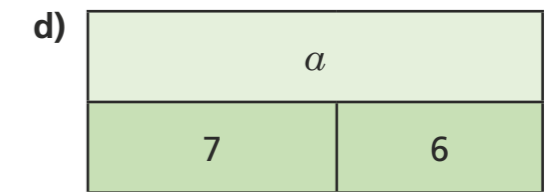
$a =$



$a =$



$a =$



$a =$

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

$$x - 8 = 20$$

$$x = 20 - 8$$

$$x = 12$$

What mistake has Nijah made?

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5 Solve the equations.

a)  $x + 7 = 20$

$x =$

b)  $10y = 80$

$y =$

c)  $4m = 22$

$m =$

d)  $g - 3 = 15$

$g =$

e)  $32 = t - 5$

$t =$

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

$u =$

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.

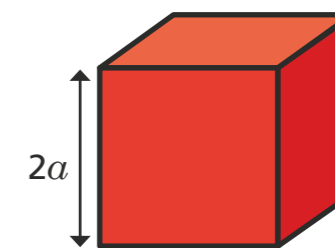
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Solve the equation to work out his number.

7 Dexter builds a tower.

Each block is  $2a$  high.

He uses 7 blocks.



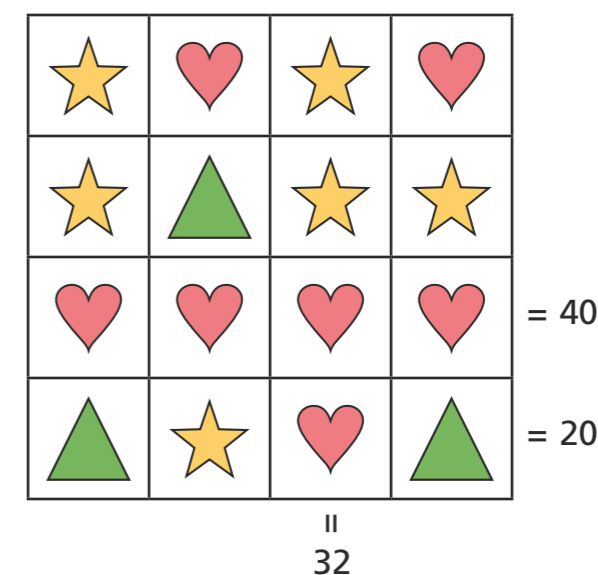
The total height of his tower is 42 cm.

Write an equation to represent the height of Dexter's tower and find the value of  $a$ .

$a =$   cm

8 Work out the value of each shape.

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



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Work out the missing total of each row and column.

Compare answers with a partner.

