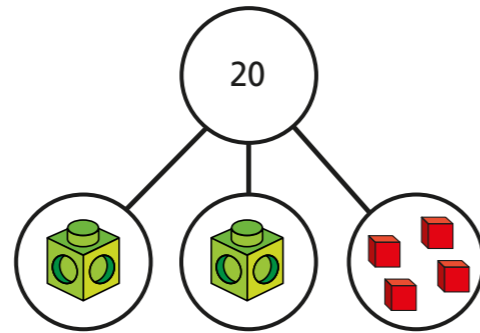


# Solve two-step equations

1 Here is a part-whole model.



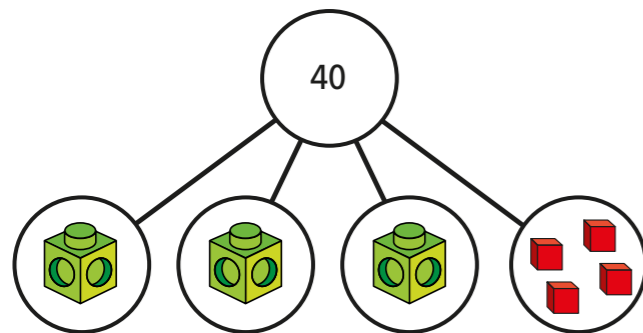
a) Write an equation for the part-whole model.

$$2a + 4 = 20$$

b) Solve the equation to work out the value of

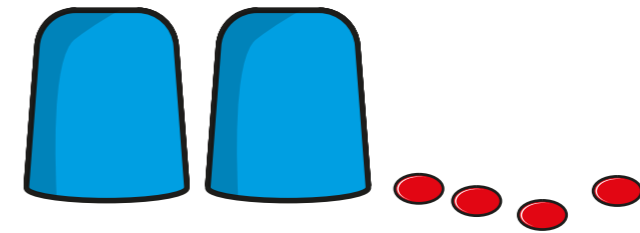
= 8

2 If each multilink cube represents  $x$ , form and solve an equation to find the value  $x$ .



$x =$  12

3 There is the same number of counters under each cup.  
There are 16 counters in total.



a) Use  $y$  to represent the number of counters under each cup.  
Write an equation in terms of  $y$ .

$$2y + 4 = 16$$

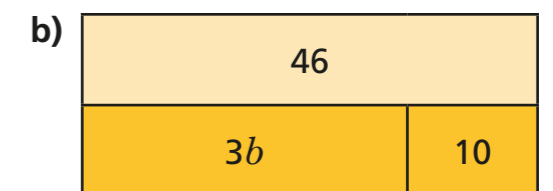
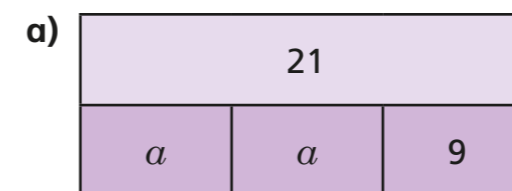
b) Solve the equation to find the value of  $y$ .

$y =$  6

c) How many counters are under each cup?

6

4 Write an algebraic equation to represent each bar model.  
Find the values of  $a$  and  $b$ .



$a =$  6

$b =$  12



5 Solve the equations.

a)  $5x + 1 = 31$

$x = 6$

d)  $9 = 2y + 8$

$y = 0.5$

b)  $3x - 3 = 9$

$x = 4$

e)  $10g - 2 = 46$

$g = 4.8$

c)  $4p - 11 = 3$

$p = 3.5$

f)  $4 + 3y = 28$

$y = 8$

6 Dani thinks of a number.

She doubles it and adds 3

She gets the answer 15

a) Write an equation to represent Dani's problem.

$2x + 3 = 15$

b) Solve the equation to find her number.

$6$



7 Alex is  $y$  years old.  
Her friend Brett is 3 years older.  
The total of their ages is 25  
How old are Alex and Brett?

Alex is  $11$

Brett is  $14$

8



a) Work out the cost of one banana and one orange.

One banana costs  $32p$

One orange costs  $28p$

b) Compare methods with a partner.

