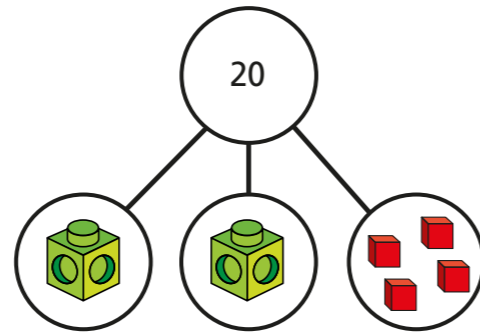


Solve two-step equations


1 Here is a part-whole model.



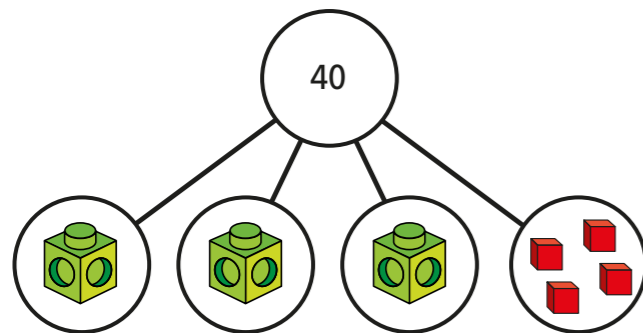
a) Write an equation for the part-whole model.

$$2a + 4 = 20$$

b) Solve the equation to work out the value of 

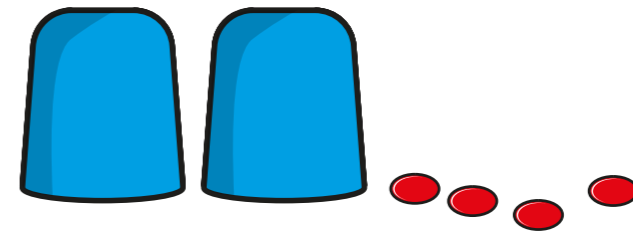
 = 8

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 .

$$2y + 4 = 16$$

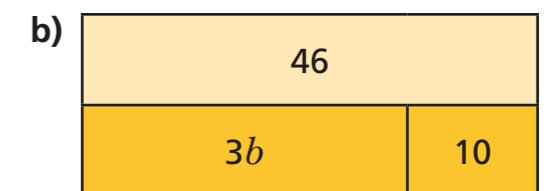
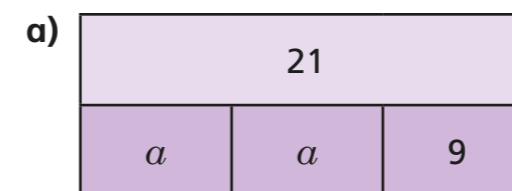
b) Solve the equation to find the value of y .

$y =$ 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

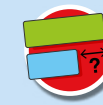
She gets the answer 15

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.

