

Solve equations, including with brackets



1 Solve the equations.

a) $p + 8 = 17$

$p =$

c) $v - 7 = -2$

$v =$

e) $\frac{t}{7} = 3$

$t =$

b) $y - 3 = 6$

$y =$

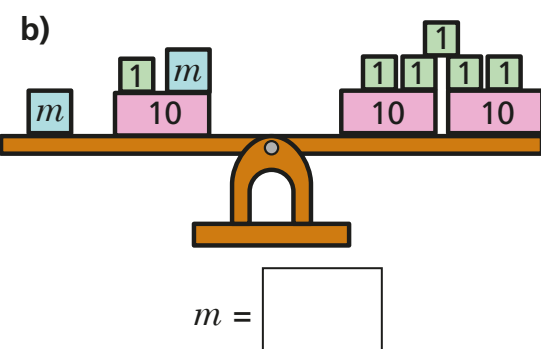
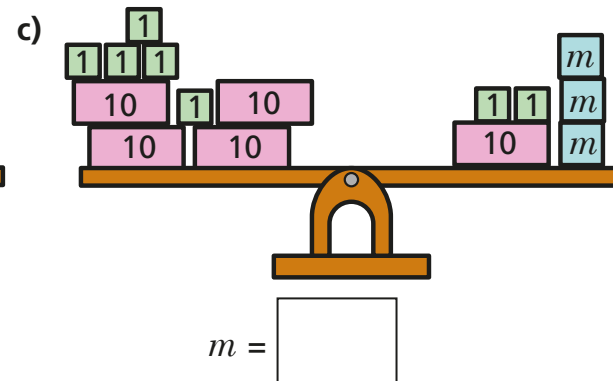
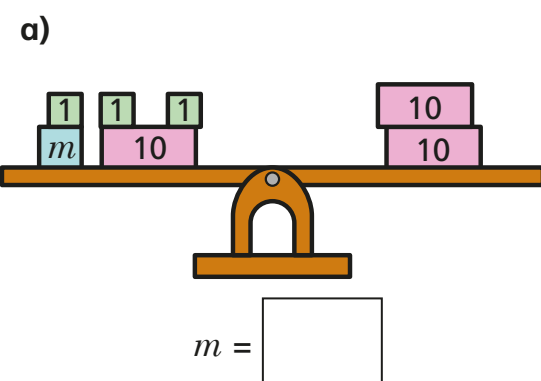
d) $4h = 17$

$h =$

f) $-35 = 5r$

$r =$

2 Work out the unknown value for each set of scales.



3 Huan has attempted to solve this equation.

$$\begin{array}{ccc} & 4x - 7 = 35 & \\ -7 & \swarrow \quad \searrow & -7 \\ & 4x = 28 & \\ \div 4 & \swarrow \quad \searrow & \div 4 \\ & x = 7 & \end{array}$$

Find and correct his error.

$x =$

4 Solve the equations.

a) $3w + 6 = 3$

$w =$

d) $-4k - 2 = 10$

$k =$

b) $\frac{m}{2} - 8 = -3$

$m =$

e) $\frac{1}{3}b - 3 = 3$

$b =$

c) $-3 = -v + 7$

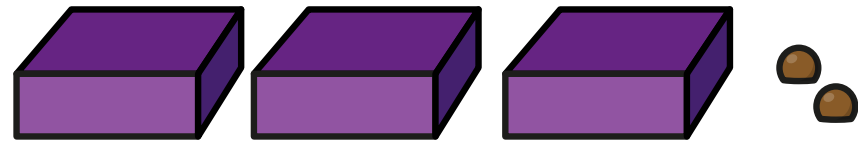
$v =$

f) $20 - 5n = -35$

$k =$

- 5 Aisha has 50 chocolates.

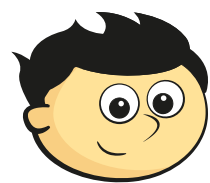
She fills 3 boxes and has 2 left over.



How many chocolates are there in each box?

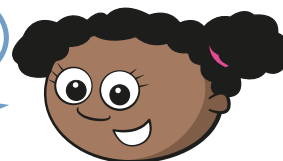
chocolates

- 6 Jack and Whitney are solving the equation $4(x - 7) = 32$



I am going to expand the brackets first.

I am going to divide both sides by 4 first.



- a) Show that both methods give the same answer.

$$4(x - 7) = 32$$

$$4(x - 7) = 32$$

$x =$

- b) Solve the equations.

$$3(x + 5) = 27$$

$$4(2x - 3) = 10$$

$x =$

$x =$



- 7 Rearrange the cards into the correct order to solve the equation $-2(3 - 4x) = 16$

$$-2(3 - 4x) = 16$$

$$8x = 22$$

$$x = 2.75$$

$$-6 + 8x = 16$$

$$x = 22 \div 8$$

Can you solve the equation in a different way? Discuss with a partner.

- 8 Solve the equations.

a) $3(f - 2) = 3$

c) $-8 = -2(t - 4)$

$f =$

$t =$

b) $5(4 - 2g) = 40$

d) $3(c + 2) - 5 = 9$

$g =$

$c =$

