

# Solve one- and two-step equations and inequalities



1 Solve the equations.

a)  $p + 8 = 17$

$p = \square$

c)  $v - 7 = -2$

$v = \square$

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

$t = \square$

b)  $y - 3 = 6$

$y = \square$

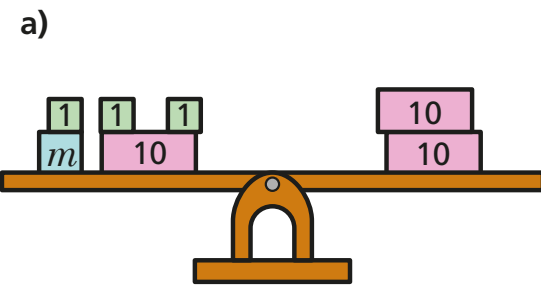
d)  $4h = 17$

$h = \square$

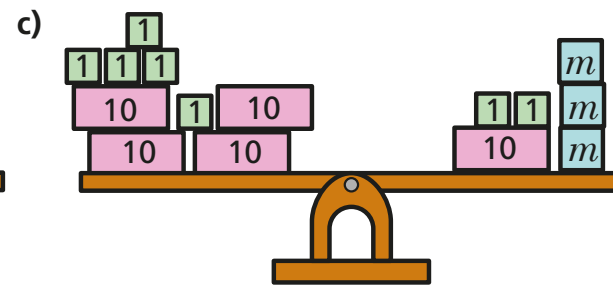
f)  $-35 = 5r$

$r = \square$

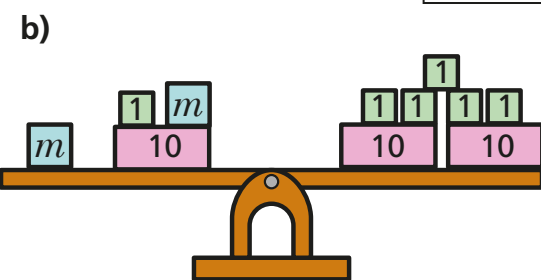
2 Work out the unknown value for each set of scales.



$m = \square$



$m = \square$



$m = \square$

3 Circle the value of  $m$  that does not satisfy the inequality.

a)  $m < 4$

0                      6                      -8                      1.8

b)  $-2 \leq m < 5$

-2                      -1                      2                      5

c)  $2m \geq -6$

12                      0                      -12                      -3

d)  $2m - 5 \leq 0$

-5                      2.5                      0                      5

4 Solve the inequalities.

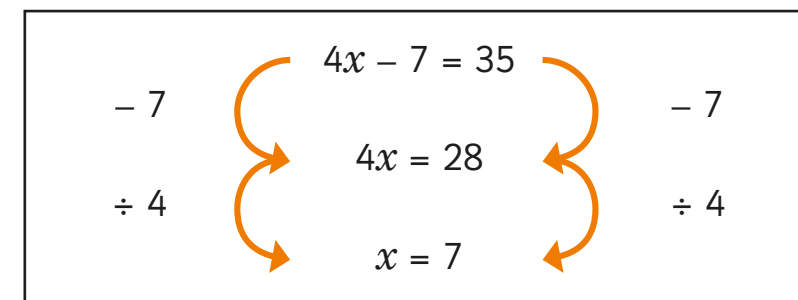
a)  $x + 6 > 2$

b)  $w - 12 \leq 2$

c)  $2p \geq 8$

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5 Huan has attempted to solve this equation.



Find and correct his error.

$x = \square$

6 Solve the equations.

a)  $3w + 6 = 3$

$w = \square$

d)  $-4k - 2 = 10$

$k = \square$

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

$m = \square$

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

$b = \square$

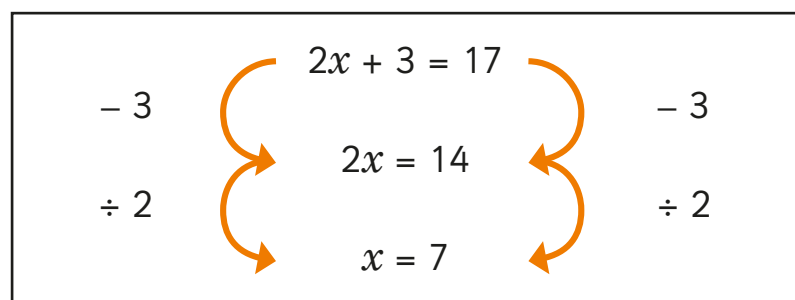
c)  $-3 = -v + 7$

$v = \square$

f)  $20 - 5n = -35$

$n = \square$

7 Filip is solving an equation.



Discuss how Filip can adapt this method to solve  $2x + 3 < 17$

8 Solve the inequalities.

a)  $5x + 2 > 27$

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c)  $10 < 3p - 1$

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b)  $3x - 9 \leq 36$

d)  $12 \geq 7 + 4t$

9 Find all of the integer values that satisfy the inequalities.

a)  $-4 \leq 2k < 11$

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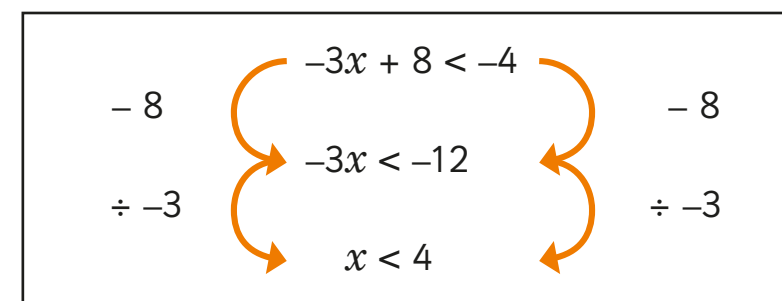
b)  $-2 < k + 3 \leq 8.5$

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c)  $-3 \leq 2k + 3 \leq 3$

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10 Esther is solving an inequality. Find and correct her mistake.



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11 Solve the inequalities.

a)  $10 - 2x > 36$

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b)  $45 \leq 70 - 5y$