

Maths

Solving two-step equations

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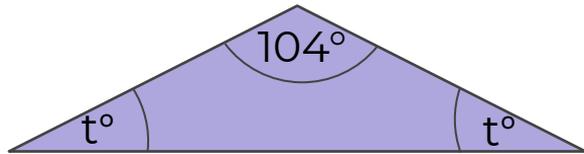
Solving two-step equations

1. Solve the equations.

a) $8p - 9 = 47$ b) $\frac{q}{4} + 3 = 23$

c) $\frac{5r}{3} = 15$ d) $73 = 13 + 4s$

2. Here is an isosceles triangle.
Form and solve an equation to find t .



3. Solve the equations.

a) $-3a + 9 = 3$ b) $-15 = 4b - 11$

c) $\frac{-3c}{4} = 6$ d) $-2 = \frac{d}{8} + 5$

4. Use this function machine to write and solve an equation to find y .



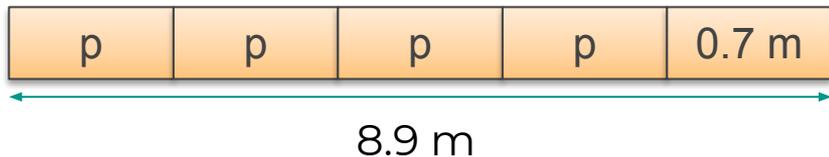
Solving two-step equations

5. Solve the equations.

a) $4w + 8 = 14$ b) $13 = 3x - 4.7$

c) $\frac{8y}{5} = -1.4$ d) $\frac{z}{6} + 5 = 5\frac{3}{4}$

6. Form and solve an equation to find the length of the plank.



7. A box of 6 eggs weighs a total of 329.6 g.



The box weighs 10.4 g.

Form and solve an equation to find the mean weight of one egg.

8. I have three cards.

Two of them have the same value.



Their total value is 3.3

What could the other two be worth?



Answers



Solving two-step equations

1. Solve the equations.

a) $8p - 9 = 47$
 $p = 7$

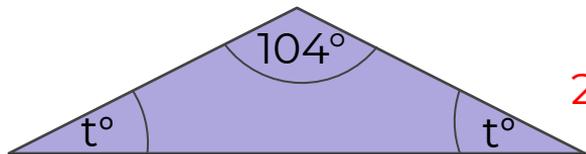
b) $\frac{q}{4} + 3 = 23$
 $q = 80$

c) $\frac{5r}{3} = 15$ $r = 9$

d) $73 = 13 + 4s$
 $s = 15$

2. Here is an isosceles triangle.

Write an equation and solve to find t .



$$2t + 104 = 180$$
$$t = 38$$

3. Solve the equations.

a) $-3a + 9 = 3$
 $a = 2$

b) $-15 = 4b - 11$
 $b = -1$

c) $\frac{-3c}{4} = 6$
 $c = -8$

d) $-2 = \frac{d}{8} + 5$
 $d = -56$

4. Use this function machine to write and solve an equation to find y .



$$4y + 19 = 7$$
$$y = -3$$



Solving two-step equations

5. Solve the equations.

a) $4w + 8 = 14$
 $w = 1.5$

b) $13 = 3x - 4.7$
 $x = 5.9$

c) $\frac{8y}{5} = -1.4$
 $y = -0.875$

d) $\frac{z}{6} + 5 = 5\frac{3}{4}$
 $z = 4\frac{1}{2}$

6. Form and solve an equation to find the length of a plank.



$4p + 0.7 = 8.9$
 $p = 2.05$

$6e + 10.4 = 329.6$
 $e = 53.2$

7. A box of 6 eggs weighs a total of 329.6 g.



The box weighs 10.4 g.

Form and solve an equation to find the mean weight of one egg. 53.2 g

8. I have three cards.

Two of them have the same value.



Their total value is 3.3

What could the other 2 be worth?

$2c + -2.4 = 3.3$
 $c = 2.85$

$c + -4.8 = 3.3$
 $c = 8.1$

Both
 2.85 or
 -2.4
 and 8.1

