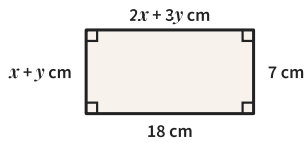


Simultaneous equations in context

1

This is a rectangle. Find x and y .



first fact $2x + 3y = 18$

second fact $x + y = 7$

$x =$ $y =$

Answer

2

3 pens and 2 notebooks cost £5.40.
1 pen and 2 notebooks cost £3.40.
A pen costs £ x and a notebook costs £ y .
Find the cost of each.

first fact $3x + 2y = 5.40$

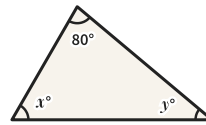
second fact

$x =$ $y =$

Answer

3

Angle x is 20° more than angle y .
Find x and y .



first fact

second fact

$x =$ $y =$

Answer

4

2 adult and 3 child tickets for a show cost £36. 1 adult and 4 child tickets cost £33. An adult ticket is £ x and a child ticket is £ y . Find the price of each.

$x =$ $y =$

Answer

5

A rectangle has a perimeter of 30 cm. Its length is 3 cm more than twice its width. Find its area.

Answer

6

In a parallelogram, one angle is $(3x + y)^\circ$, the angle opposite it is 110° and the angle next to it is $(x + y)^\circ$. Find x and y .

Answer

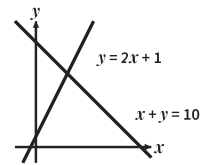
7

A jar holds 20 coins, all 10p or 50p. Together they are worth £5.20. How many of each coin are there?

Answer

8

The lines $y = 2x + 1$ and $x + y = 10$ cross at P. Find the coordinates of P.



Answer

Simultaneous equations in context *further practice*

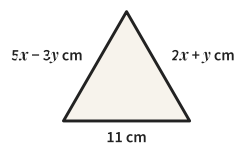
9

Cinema tickets for 3 adults and 2 children cost £40. Tickets for 2 adults and 5 children cost £45. Find the price of an adult ticket and of a child ticket.

Answer

10

This triangle is equilateral. Find x and y .



Answer

11

A rectangle has a perimeter of 34 cm. Its length is 7 cm more than its width. Find the length of its diagonal.

Answer

12

Twice the first number plus the second number is 26. The first number is 4 more than the second. Find the two numbers.

Answer

13

4 teas and 3 coffees cost £11.90. 2 teas and 5 coffees cost £13.30. Find the cost of a tea and of a coffee.

Answer

14

Two straight lines cross. One angle is $(2x + y)^\circ$, the angle opposite it is 100° and the angle next to it is $(x + 3y)^\circ$. Find x and y .

Answer

15

A plumber charges a call out fee plus an hourly rate. A 2 hour job costs £110 and a 5 hour job costs £200. How much does a 3.5 hour job cost?

Answer

16

Jo solves $x + y = 10$ and $x - y = 4$ and gets $x = 3, y = 7$. Explain how you can tell she is wrong, and find the right answer.

Answer