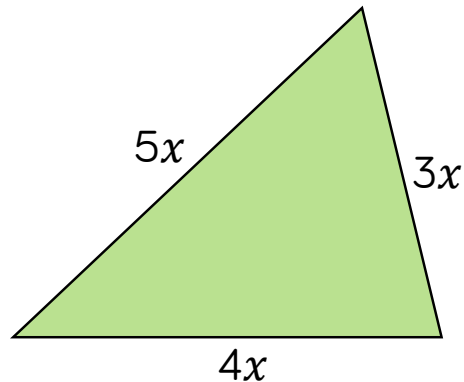


One-step Equations

Reasoning and Problem Solving

The perimeter of the triangle is 216 cm.



Form an equation to show this information.

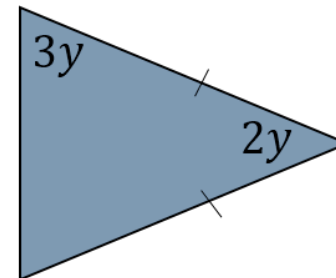
Solve the equation to find the value of x .

Work out the lengths of the sides of the triangle.

- Hannah is 8 years old
- Jack is 13 years old
- Grandma is $x + 12$ years old.
- The sum of their ages is 100

Form and solve an equation to work out how old Grandma is.

What is the size of the smallest angle in this isosceles triangle?



How can you check your answer?

Two-step Equations

Reasoning and Problem Solving

The length of a rectangle is $2x + 3$
 The width of the same rectangle is $x - 2$
 The perimeter is 17 cm.

Find the area of the rectangle.

Alex has some algebra expression cards.



$$y + 4$$

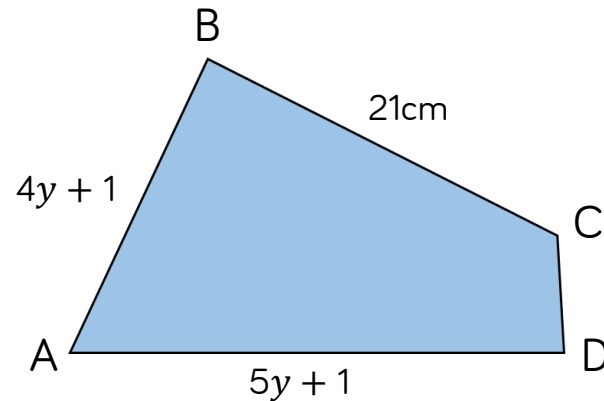
$$2y$$

$$3y - 1$$

The mean of the cards is 19
 Work out the value of each card.

Here is the quadrilateral ABCD.

The perimeter of the quadrilateral is 80 cm.



AB is the same length as BC.

Find the length of CD.

Find Pairs of Values (1)

Reasoning and Problem Solving

a , b and c are integers between 0 and 5

$$a + b = 6$$

$$b + c = 4$$

Find the values of a , b and c

How many different possibilities can you find?

x and y are both positive whole numbers.

$$\frac{x}{y} = 4$$

Dora says,



x will always be a multiple of 4

Jack says,



y will always be a factor of 4

Only one is correct – who is it?
Explain your answer.

Find Pairs of Values (2)

Reasoning and Problem Solving

$$ab + b = 18$$

Mo says,



a and b must both
be odd numbers

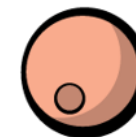
Is Mo correct?
Explain your answer.

Large beads cost 5p and small beads cost
4p

Rosie has 79p to spend on beads.



4p



5p

How many different combinations of
small and large beads can Rosie buy?

Can you write expressions that show all
the solutions?

