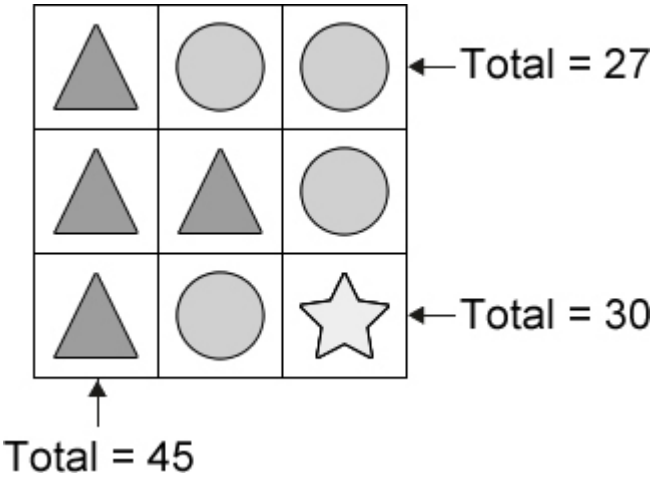
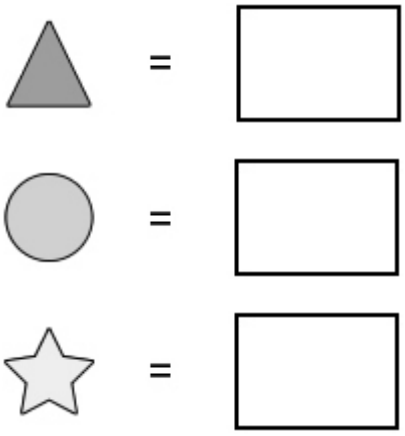
1. Each shape stands for a number.



Work out the **value** of each shape.



1 mark

2. a and b each represent a whole number between 1 and 10

$$2a + b = 8$$

Write the three possible combinations of a and b
One is done for you.

when a = [1] b = [6]

when a = [ ] b = [ ]

when a = [ ] b = [ ]

2 marks

3. Write the missing numbers so that $2a + 5b = 30$

One is done for you.

$2a + 5b = 30$ when $a = 0$ and $b =$ 6

$2a + 5b = 30$ when $a = 5$ and $b =$ _____

1 mark

$2a + 5b = 30$ when $a = 15$ and $b =$ _____

1 mark

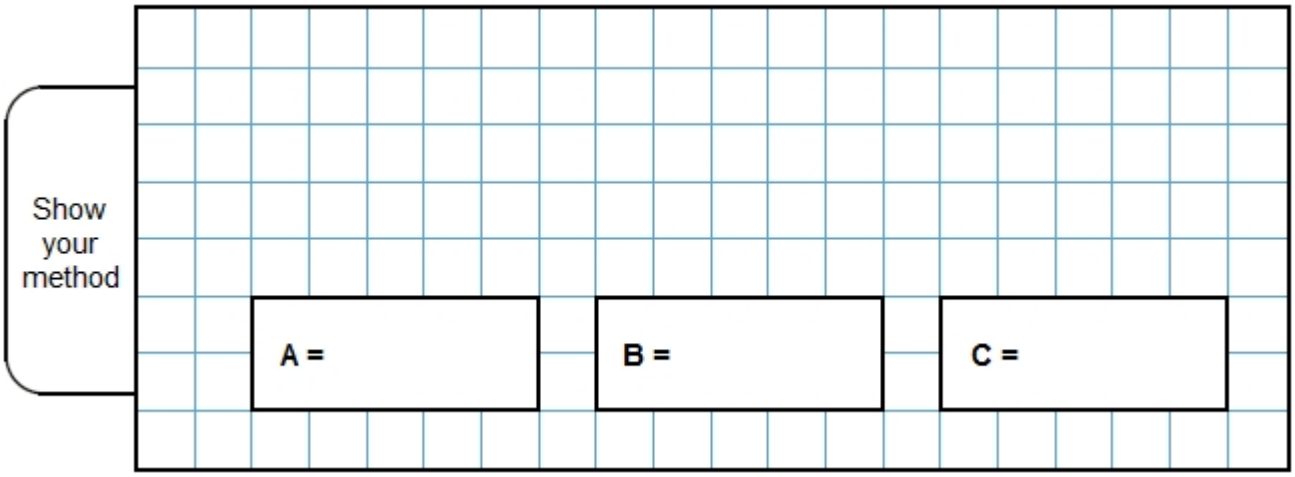
4. A, B and C stand for three different numbers.

The mean of A and B is 40

The mean of B and C is 35

A + B + C = 100

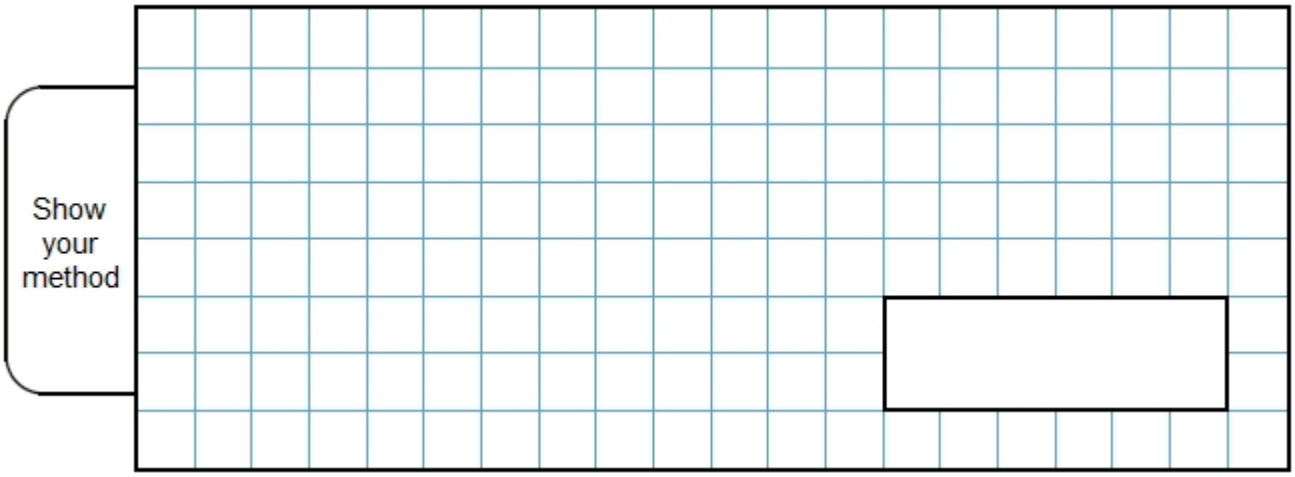
Calculate the values of **A**, **B** and **C**.



2 marks

5. Find the value of ***t*** in this equation.

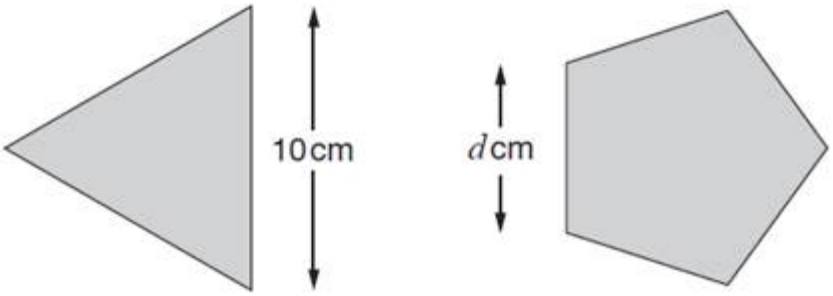
$$33 - 8t = 15$$



2 marks

6. Here are an equilateral triangle and a regular pentagon.

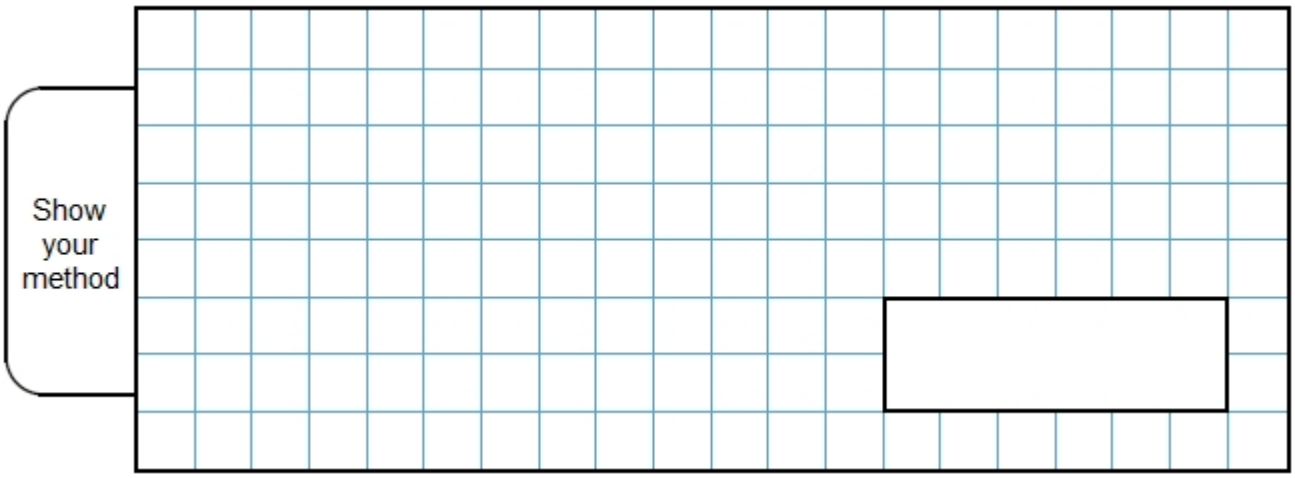
Not actual size



Each side of the triangle is 10 cm
Each side of the pentagon is d cm

The perimeter of the pentagon is 4 centimetres more than the perimeter of the triangle.

What number does d represent?



2 marks