Here are two equations.

$$p = 2a + 5$$

$$c = 10 - p$$

Find the value of c when $a = 10$

$$x = 2c + 6$$

Joe says,

$x = 12$ because c must be equal to 3 because it's the 3rd letter in the alphabet

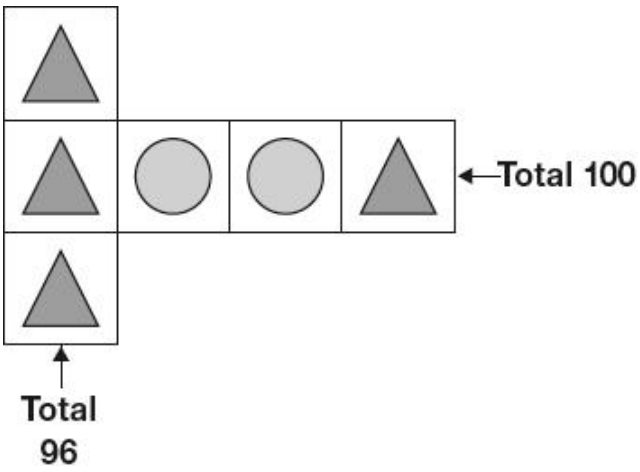
Is Joe correct?

Derek says,

When $c = 5$ the answer is 31

Is Derek correct?

Q3. Each shape stands for a number.



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

 = _____

1 mark

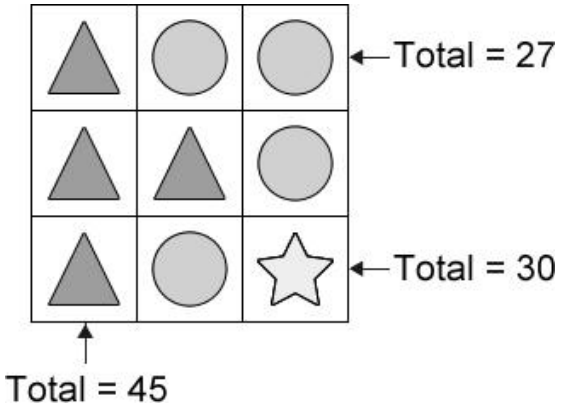
 = _____

1 mark

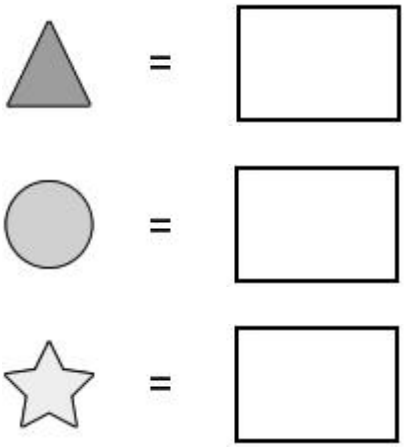
Q4. What is the value of $4x + 7$ when $x = 5$?

1 mark

Q5. Each shape stands for a number.



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



1 mark

Q6. 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

C = -15

No Joe is incorrect. C could have any value.

No Derek is incorrect – he has just put the 2 and 5 together to make 25 instead of multiplying them.

Q1. (a) ▲ = 32

1

(b) ○ = 18

*If the answers to ○ and ▲ are incorrect, award **ONE** mark if*
▲ + ○ = 50 unless ○ = 25

1

[2]

Q2. 27

[1]

Q3. Award **ONE** mark for three correct numbers, as shown.

▲ = 15

○ = 6

☆ = 9

[1]

Q4. Award **TWO** marks for both correct combinations, as shown.

when a = 2 b = 4

when a = 3 b = 2

OR

when a = 3 b = 2

when a = 2 b = 4

Award **ONE** mark for either combination correct, i.e.

when a = 2 b = 4

OR

when a = 3 b = 2

[2]