



Help Code : 017

ALGEBRA and UNKNOWNNS

12

$$n = 22$$

What is $2n + 9$?



$$2q + 4 = 100$$

Work out the value of q .

$$q = \text{[]}$$



13

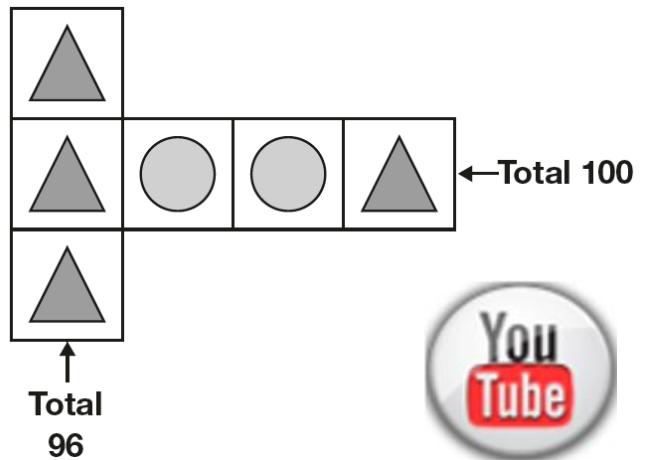
Lara chooses a number less than 20
She divides it by 2 and then adds 6
She then divides this result by 3
Her answer is 4.5

What was the number she started with?

Show your method

4

Each shape stands for a number.



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

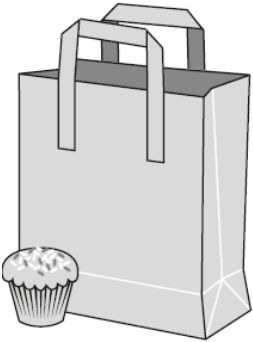
$$\triangle = \underline{\hspace{2cm}}$$

$$\circ = \underline{\hspace{2cm}}$$

8

Maria bakes cakes and sells them in bags.

She uses this formula to work out how much to charge for one bag of cakes.



Cost = number of cakes × 20p + 15p for the bag

How much will a bag of 12 cakes cost?

£

Olivia buys a bag of cakes for £5.15

Use the formula to calculate how many cakes are in the bag.



Show your method

Grid with a box labeled 'cakes' for the answer.

16

Lara chooses a number less than 100
She divides it by 3 and then subtracts 11
She then divides this result by 2
Her answer is 10.5

What was the number she started with?

Show your method

Grid with a YouTube logo and a box for the answer.

Y6 SATs

Algebra & Unknowns BOOSTER

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2013A KS2 Q15



Four children are in a race.

Chen is 2 metres ahead of Alfie.

Nina is 5 metres behind Megan.

Alfie is 3 metres behind Megan.

Write the names of the runners in order, starting with the child who is furthest ahead.

furthest ahead

2012A KS2 Q21



Mina has **5 more** marbles than Kirsty.

Kirsty has **2 more** marbles than Seb.

Altogether they have **30** marbles.

How many marbles does each child have?

Show your working

Mina

Kirsty

Seb

2013A KS2 Q24



A cake costs 15p more than a biscuit.

Megan bought a cake and two biscuits for 90p.

How much do a cake and a biscuit each cost?

Show your working

Cost of a cake

p

Cost of a biscuit

p

2010A KS2 Q15



An iced cake costs 10p more than a plain cake.

Sarah bought two of each cake.

They cost £1 altogether.



What is the cost of an **iced** cake?

Show your working. You may get a mark.

p

2006A KS2 Q23

k stands for a whole number.

$k + 7$ is greater than 100

$k - 7$ is less than 90

Find **all** the numbers that k could be.



2004A KS2 Q22

Liam thinks of a number.

He **multiplies the number by 5** and then **subtracts 60** from the result.



His answer equals the number he started with

What was the number Liam started with?



Show your **working**.
You may get a mark.



2000A KS2 Q12

Leon and Sara each started with **different** numbers.

I **added 5**
to my number.

I **subtracted 8**
from my number.



Leon



Sara

Leon and Sara both get the **same** answer.

What numbers could they have started with?



Leon

Sara

