## Where in the world is our agent?



## An investigation involving estimation, formula and addition.

 Top government agents have produced a secret code. Can you study the code and explain the formula?

### abcdefghijklm 12345678910111213

### Secret country code breaker

### n o p q r s t u v w x y z 14 15 16 17 18 19 20 21 22 23 24 25 26

• Each letter has a value which is equal to the position it has in the alphabet.

- A is the first letter = 1
- B is second = 2

• Z is last, so = 26

#### Where in the world is this?



#### 6 18 1 14 3 5

Can you add up the numbers to give the country a quick code number?

## 6 + 18 + 1 + 14 + 3 + 5=

### How do you add up?

## 6 + 18 + 1 + 14 + 3 + 5 =

Along the line?

Tens first then units?

Units then tens?

Big to small?

• How do you add?

#### 6 + 18 + 1 + 14 + 3 + 5 =

6+1418+13+52019820207

47

• Where in the world?







### France is worth 47.....

Can you predict which country has the most points?

• Latvia

England

• Greece

## Why did you think this?

• Latvia

England



• Latvia

England

• Greece

- Latvia
  12
  1
  20
  22
  9
  1 =
- England

• Greece

- Latvia
  - 12 1 20 22 9 1 = 65
- England
- 5 14 7 12 1 14 4 =
- Greece

- Latvia
  - 12 1 20 22 9 1 = 65
- England
- 5 14 7 12 1 14 4 = 57
- Greece
- 7 18 5 5 3 5 =



### Where is code 100?

Wales	Denmark	New Zealand
Turkey	Holland	Zimbabwe
India	Australia	Italy
America	Venezuela	Canada
Egypt	Germany	Japan

and where shall we take him to hide? (the smallest total)

The code was too easy to break.

I have designed a new code using a formula of numbers for letters but I have lost my code breaker. All I have are the names of 6 countries and their codes but they are muddled.

Can you sort them out and work out the formula of the new code?

### abcdefghijklm

#### New code breaker

#### n o p q r s t u v w x y z

### abcdefghijklm 135791113151719212325

### New code breaker

### n o p q r s t u v w x y z 27 29 31 33 35 37 39 41 43 45 47 49 51

### Where is code 100 answers.

Wales	Denmark	New Zealand
Turkey 100	Holland	Zimbabwe
India	Australia	Italy
America	Venezuela	Canada 24
Egypt	Germany	Japan

and where shall we take him to hide? (the smallest total)