

REASONING

9ER17

First name _____

Last name _____

School _____

Class _____

Date of birth ○○ ○○ ○○○○

Date of test ○○ ○○ (2) (0) (1) (7)

Total score (maximum 20)



Llywodraeth Cymru
Welsh Government

1



Each advert costs
£7.25 for every
thousand people watching

One day, 180 000 people watched the television channel from 6pm to 7pm.

During this time there were 15 adverts.

Show that a total of £19 575 was paid for these adverts.

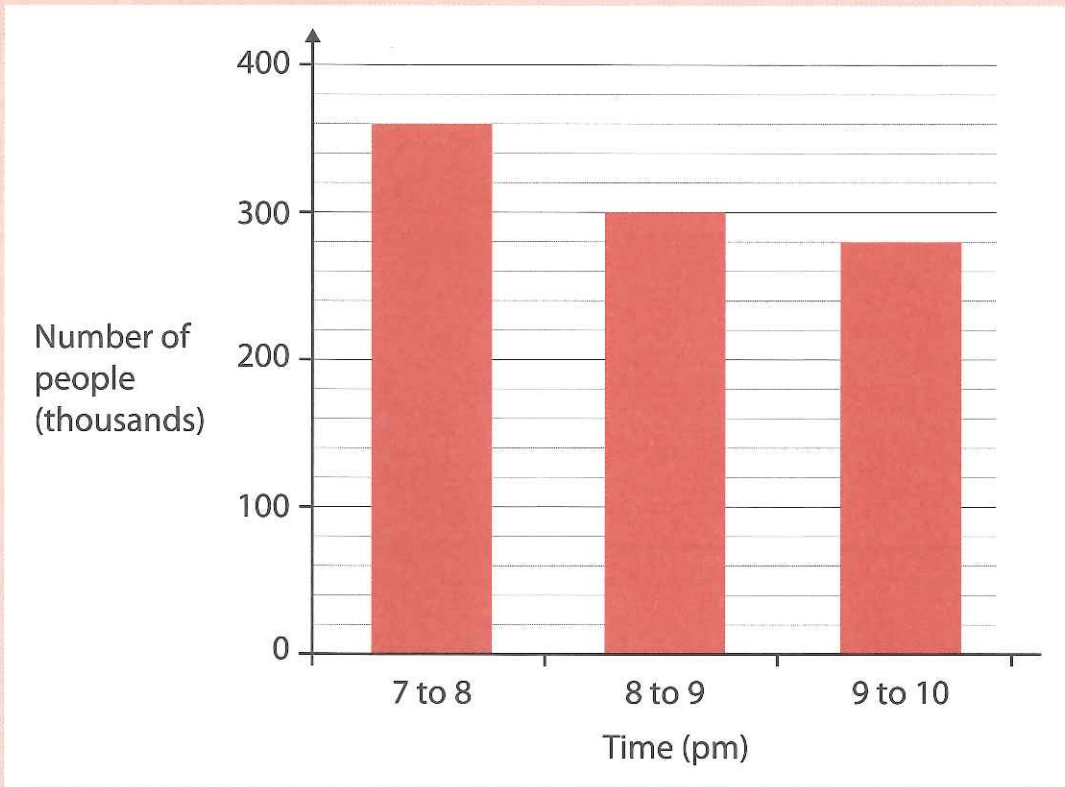
1m

Look at the chart and table in the box on the next page.

Altogether, how much was paid for adverts from 7pm to 10pm?

3m

Number of people watching the television channel per hour



Number of adverts shown per hour

24	20	16
7pm to 8pm	8pm to 9pm	9pm to 10pm

The television channel is paid an average of £250 000 per 24 hours.

To the **nearest million pounds**, how much does the television channel get from adverts **in one year**?



£
million

2m

TOTAL

6m

- 2 If you **add** these two numbers, then **divide** the result by 5, the answer is 14

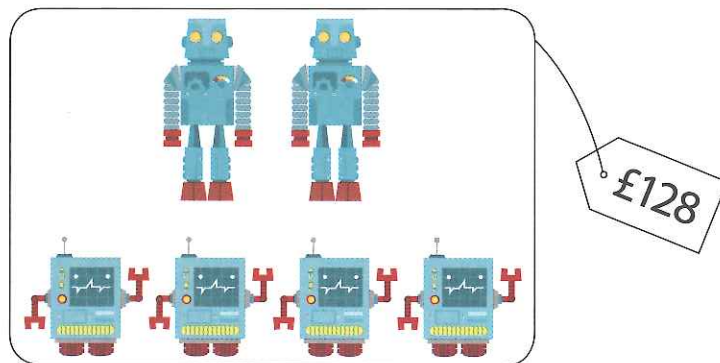
18 ?

Work out the missing number.



2m

- 3 The total cost of 2 large robots and 4 small robots is £128



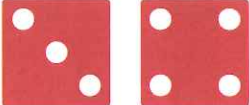
A large robot is **twice** the cost of a small robot.

What is the cost of 1 **large** robot?

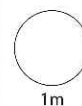


2m

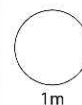
4 Tomos throws two six-sided dice and **adds** the numbers to find the score.

Example:  scores 7

Show why the **range** (= highest – lowest) of possible scores is 10



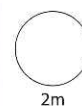
What is the range of possible scores for **three** six-sided dice?



Seren has some six-sided dice.

The range of possible scores is 35

How many dice does she have?



TOTAL



5

Facts:

- About 10% of people are left-handed.
- About 56% of left-handed people are boys or men.



There are about 3 100 000 people in Wales.

How many of them are likely to be left-handed boys or men?

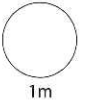
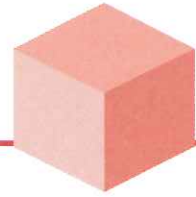
A large rectangular area with a red border, intended for a student's answer. In the top-left corner of this area is a small icon of a notepad with a pencil. In the bottom-right corner of this area is a smaller red-bordered box containing the text "left-handed boys or men".

2m

6 Pupils have centimetre cubes that connect to make shapes.

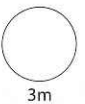
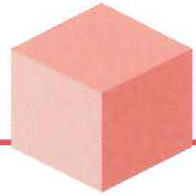
Rhian wants to make a solid cube, 5cm by 5cm by 5cm.

Show why she needs a total of 125 centimetre cubes.



Marc wants to make a 5cm by 5cm by 5cm cube but the **inside** will be **hollow**.

What is the smallest number of centimetre cubes that he needs?



TOTAL

