

REASONING

8ER18

First name _____

Last name _____

School _____

Class _____

Date of birth ○○ ○○ ○○○○

Date of test ○○ ○○ 2018

Total score (maximum 20)



165123



Llywodraeth Cymru
Welsh Government

1



What will our profit be if 150 people play?

Complete the missing information:

If 150 people play

Income:

50p per go, **total** = £

1m

Expenditure (money for prizes, the board and lollies):

Colour of stick	Number of sticks	Prize per stick	Total amount
Red	1	£2.50	£
Blue	9	£1.00	£
Yellow	20	25p	£
White	120	0p	£ 0.00
Cost of the board and lollies			£ 26.00
Total =			£

2m

Profit = £

1m

What will our profit be if 120 people play?



If 120 people play, why can't Year 8 be sure how much they will give out for prizes?



1m


If 120 people play, work out their **maximum** and **minimum** possible profit.



Maximum

Maximum possible profit

£



Minimum

Minimum possible profit

£




1m

2m

TOTAL
8m


2 Pupils in Year 8 plan their school show.

There will be **two parts** with an interval in between.

	Part 1 must start at 1:30pm
	Interval must be 25 minutes
	Part 2 must end at 3:15pm

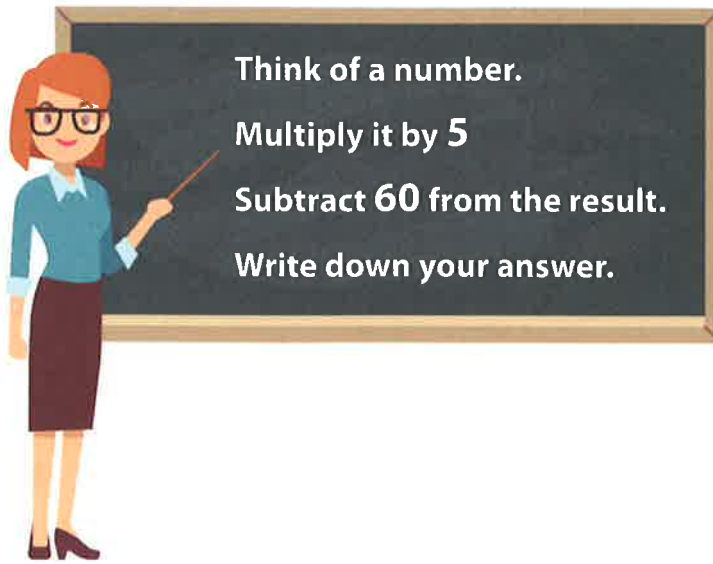
The parts must last for the **same** amount of time.

At what time must the **interval start**?



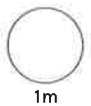
The interval must start at : pm

3 A teacher says:



Siwan's answer is 40

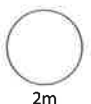
What number did Siwan start with?



1m

Gareth's answer is the **same** as the number he started with.

What number did Gareth start with?



2m

TOTAL



6m

4



Imagine every person living in Wales aged between 5 and 64 wants to go to one of these concerts.

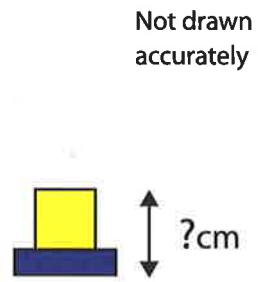
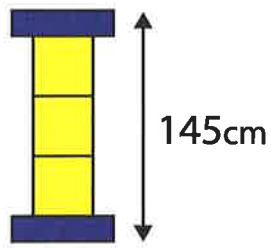
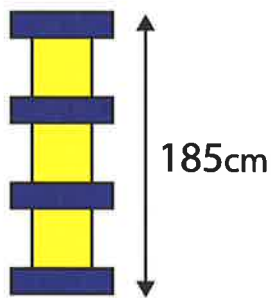
Use the facts below. How many concerts would there need to be?

Facts:

- 74 500 visitors can fit in the stadium at one time.
- About 3 100 000 people live in Wales. Of these, 180 000 are aged below 5 and 625 000 are aged 65 or over.

concerts

5 Rashid makes towers using identical blue blocks and identical yellow blocks.



Work out the missing height.

A large rectangular area with a red border, intended for the student's work. In the top-left corner, there is a small icon of a notepad with a pencil.

? = cm

3m

TOTAL

6m