

REASONING

7ER18

First name _____

Last name _____

School _____

Class _____

Date of birth ○○ ○○ ○○○○

Date of test ○○ ○○ (2) (0) (1) (8)

Total score (maximum 20)



165113



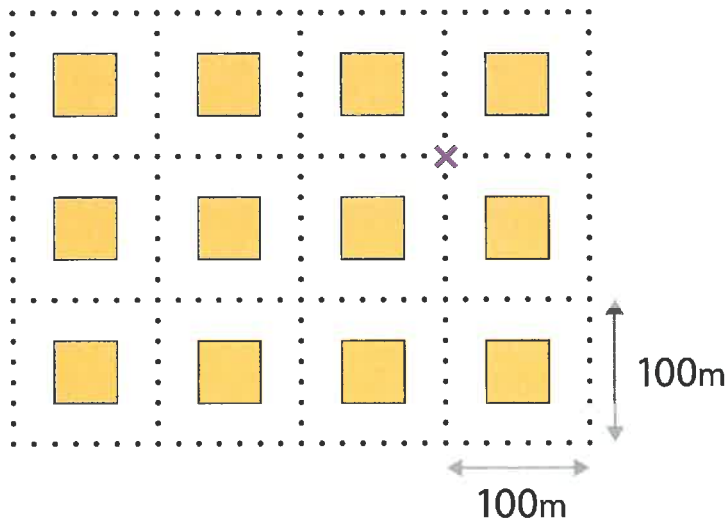
Llywodraeth Cymru
Welsh Government

1

Ffion is at ✕

She walks on the roads for 200m, away from ✕

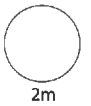
Put crosses to show **all six** places she could be now.



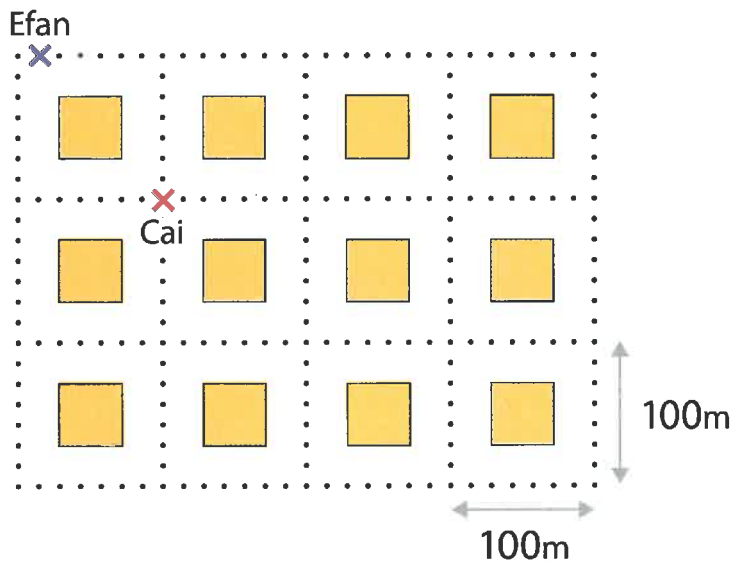
Key:

..... road

 tall building



Cai is at ✕ and Efan is at ✕



Key:

..... road

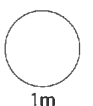
 tall building

Cai can't see Efan because of the tall building.

Efan moves east (→).

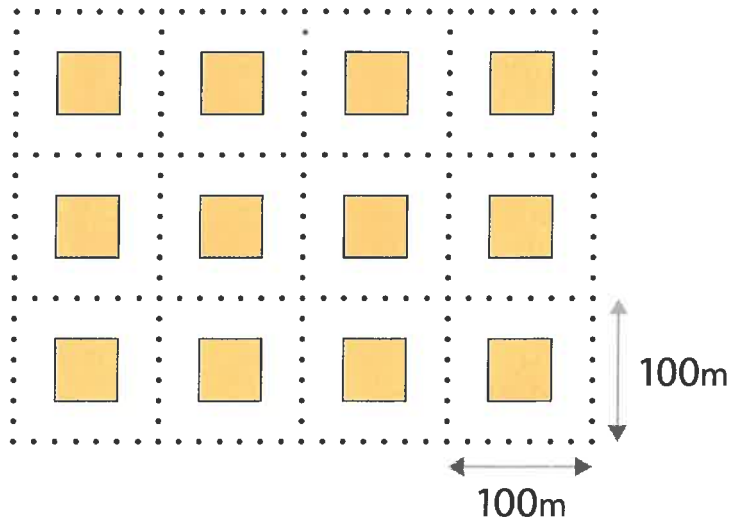
Where is Efan when Cai can first see him?

Show his position accurately with a cross.



An important person is coming to the town.

There will be red carpet on **all** the roads.



Key:

..... road

 tall building

The town has a 3km-long red carpet.

Is this enough for all the roads?

Show how you know.



3m

TOTAL



6m

2 This boat takes passengers whale watching.

Whale watching:
Up to 18 passengers per trip



One weekend 283 passengers went on the boat.

Each trip was full except for the last trip.

How many passengers were on the last trip?

A large red-bordered box for writing the answer. In the top left corner, there is a small icon of a notepad with a pencil. In the bottom right corner, there is a smaller red-bordered box containing the word "passengers".

passengers

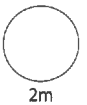
- 3 In the bottle is 50% orange juice and 50% lemonade, mixed together.
Liam drinks **half** of it then fills the bottle with **lemonade**.



What is in the bottle now?



_____ % orange juice, _____ % lemonade

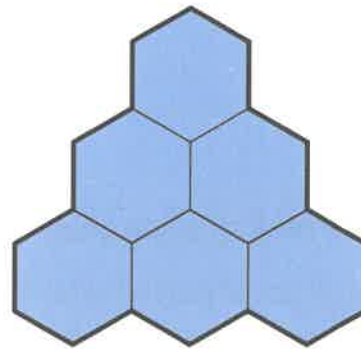


- 4 The **perimeter** of this regular hexagon is 120cm.



Not full size

Six of these hexagons join together to make this new shape.



What is the perimeter of the new shape?



_____ cm



TOTAL



5 Work out the missing digits.

$$\begin{array}{|c|c|} \hline 2 & \square \\ \hline \end{array} \times \begin{array}{|c|c|} \hline \square & 2 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 3 & 0 & 0 \\ \hline \end{array}$$

1m

$$\begin{array}{|c|c|c|} \hline \square & 6 & 8 \\ \hline \end{array} \div \begin{array}{|c|c|} \hline 2 & \square \\ \hline \end{array} = \begin{array}{|c|c|} \hline 3 & 2 \\ \hline \end{array}$$

1m

6



Nadeen

I have £6.60



Kim

I have £2.80

Nadeen gives Kim some of her money so that they have the **same** amount.
How much does Nadeen give to Kim?



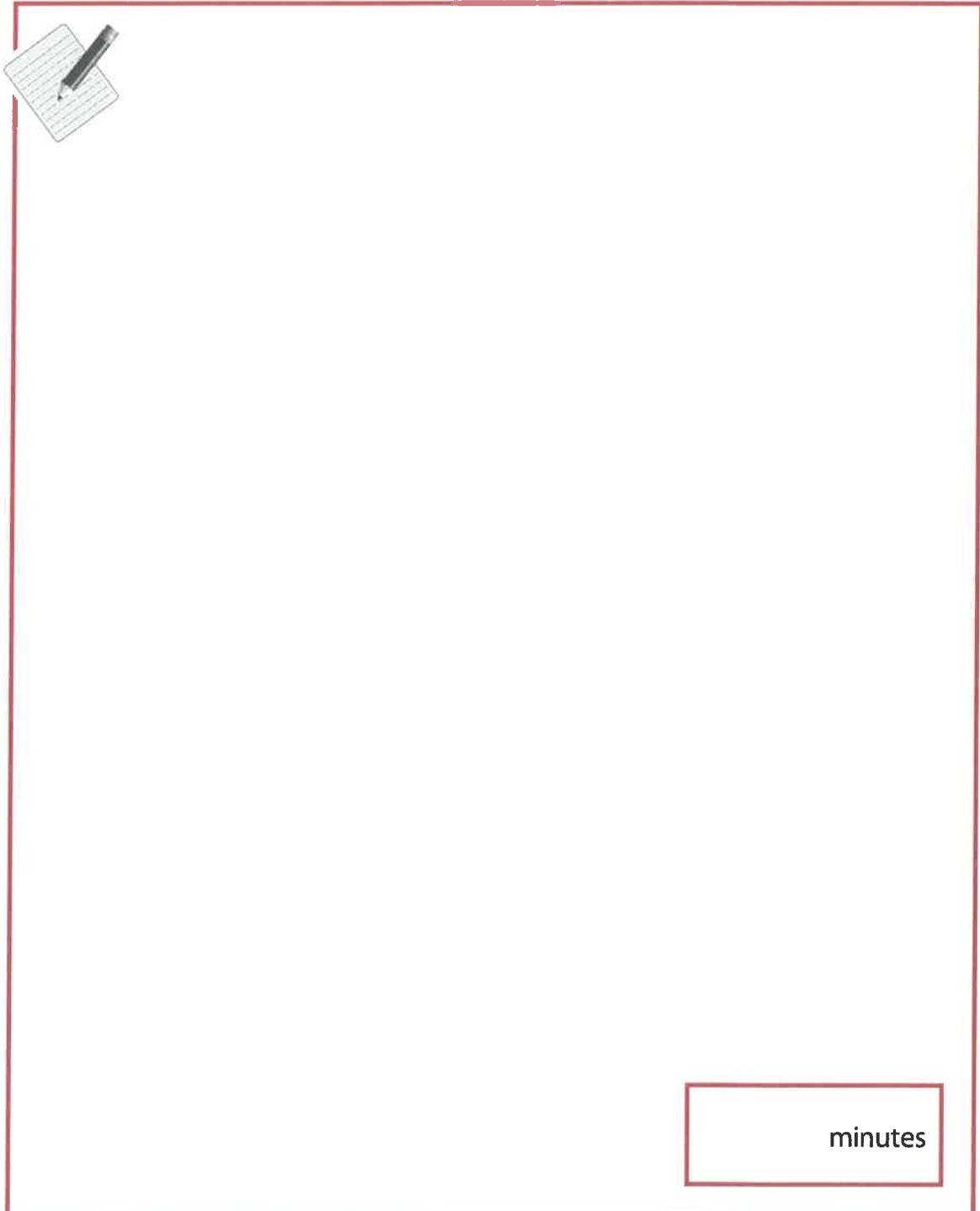
£

2m

7 A new school needs to plan a timetable.

- Lessons will start at 9:30am and end at 3:45pm.
- There must be 6 lessons in a day, all the **same** length.
- There must be 1 break of 15 minutes and 1 hour for lunch.

How long should a lesson be?



minutes

