

REASONING

7ER15

First name _____

Last name _____

School _____

Class _____

Date of birth ○○ ○○ ○○○○

Date of test ○○ ○○ (2015)

Total score (maximum 20)



1 Remember:

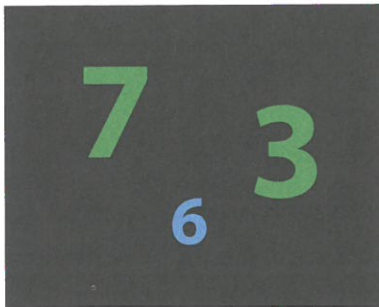
White digits
occur **3 times**

Green digits
occur **twice**

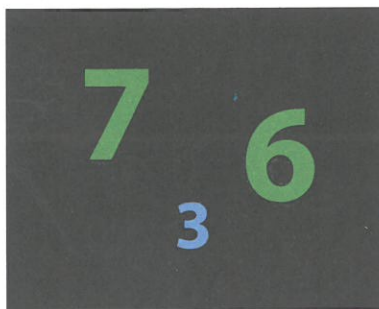
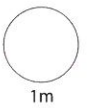
Blue digits
occur **once**



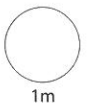
Work out the missing digits.



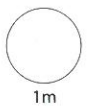
$$\left[\begin{array}{|c|} \hline \\ \hline \end{array} \right] 6 - \left[\begin{array}{|c|} \hline \\ \hline \end{array} \right] = \left[\begin{array}{|c|} \hline 3 \\ \hline \end{array} \right]$$



$$\left[\begin{array}{|c|} \hline \\ \hline \end{array} \right] 3 - \left[\begin{array}{|c|} \hline \\ \hline \end{array} \right] = \left[\begin{array}{|c|} \hline 6 \\ \hline \end{array} \right]$$

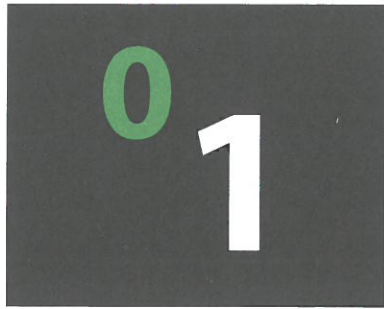


$$\left[\begin{array}{|c|} \hline \\ \hline \end{array} \right] \times \left[\begin{array}{|c|} \hline \\ \hline \end{array} \right] = \left[\begin{array}{|c|} \hline \\ \hline \end{array} \right]$$

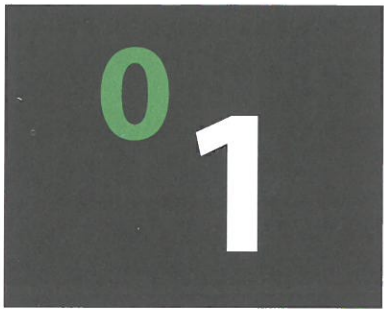


Write a number sentence for each number-le.

Each number sentence must include =



A number sentence using **multiplication**:



A number sentence using **division**:



A number sentence using **addition**:



A number sentence using **subtraction**:

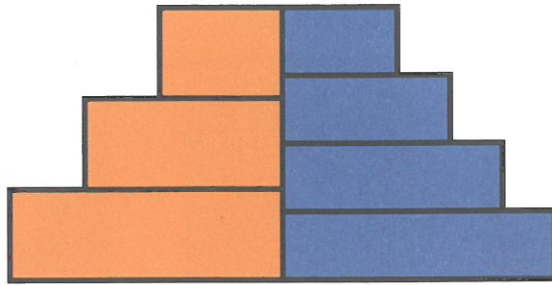


2m



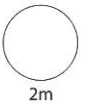
5m

- 2 The height of each **orange** block is **6cm**.



Work out the height of each **blue** block.

cm



- 3 Steve and Alun run 100m.

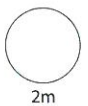
Steve runs in this time:



Alun runs **half a second faster** than Steve.

What is Alun's time?

seconds



4 Some children make cards.



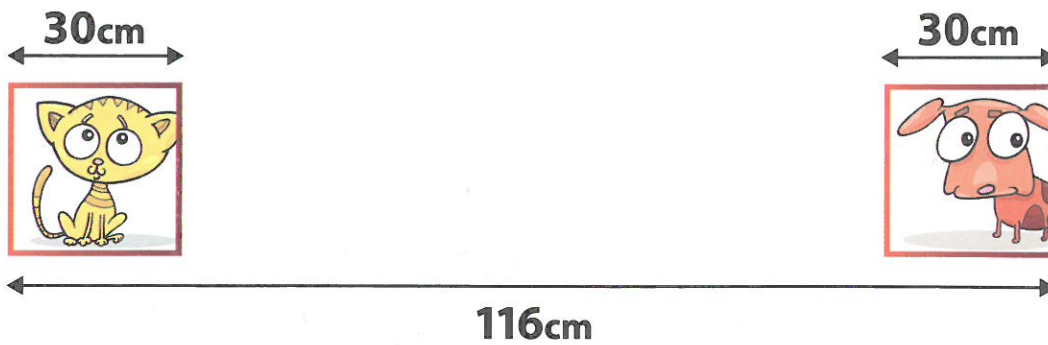
The children sell **69** of their cards.

How much profit do they make?

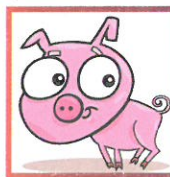
£

5 Lily has three pictures, all the **same size**.

Two are hanging on the wall.



I want to hang

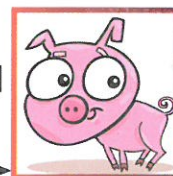


It must be **exactly** in the **middle**.

How many centimetres should be between



and

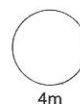


?

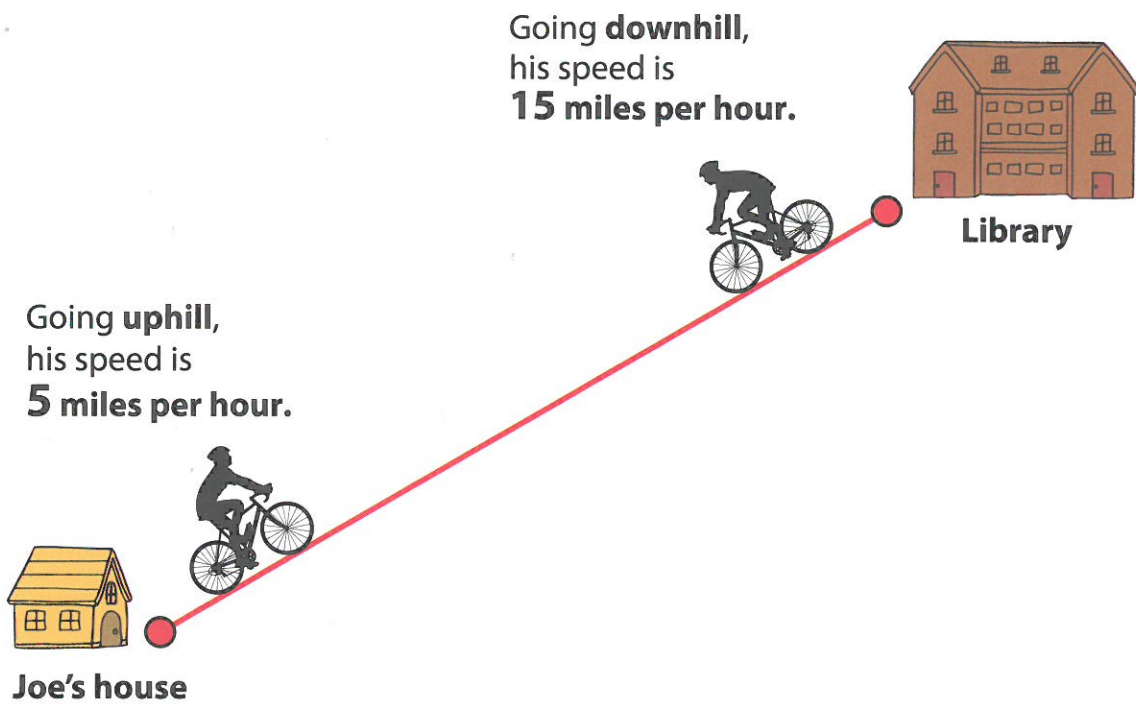
?



cm



6 Joe cycles to and from the library.



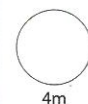
It is **2.5 miles** uphill from Joe's house to the library.

Joe leaves his house at **9:50am.**

He must be home at **11:15am.**

How long can he spend at the library?

minutes



TOTAL



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