## Problems of the Day 2019

I The shape is made up of a square and a rectangle.


Find the length of the side $y$

2 Work out the missing numbers.
(a) $5 \times \frac{2}{3}=\square \times \frac{1}{3}$
(b) $10 \times \frac{3}{8}=\square \times \frac{5}{8}$
(c) $5 \times \frac{1}{4}=\square \times \frac{1}{8}$

## Problems of the Day 2019

A school makes 50 sandwiches each day.
The table shows the number of sandwiches sold each day last week.

| Day | Number of <br> sandwiches sold |
| :---: | :---: |
| Monday | 20 |
| Tuesday | 32 |
| Wednesday | 47 |
| Thursday | 18 |
| Friday | 39 |

How many sandwiches in total were not sold last week?

2 Tony earns $£ 600$ a week.


He spends $20 \%$ of the amount remaining on a new coat.

How much money does the coat cost?

## Problems of the Day 2019

| Maisie buys 5 boxes of eggs.


Each box contains 12 eggs.
She uses 18 of the eggs.
What fraction of the eggs does she have left?

2 Max has some bags of apples and some bags of oranges.

- There are twice as many oranges as apples in a bag.
- Max has 4 bags of apples and 3 bags of oranges.
- Max has 70 apples and oranges in total

How many oranges are in one bag?

## Problems of the Day 2019

1A number line has 2 numbers marked.


True or False

$$
A+B>250
$$

Explain your answer.

2 Dana has a square grid.
The length of each square is 6 cm .
$6 \mathrm{~cm} \uparrow$


Dana shades in part of the grid.

What is area of the shaded part
 of the grid?

## Problems of the Day 2019

I Which of the fractions add up to I?

$$
\begin{array}{llll}
\frac{1}{5} & \frac{3}{10} & \frac{3}{5} & \frac{1}{2}
\end{array}
$$

Which two of the fractions below have the greatest difference?

| $\frac{4}{9}$ | $\frac{1}{3}$ | $\frac{1}{6}$ | $\frac{7}{18}$ |
| :--- | :--- | :--- | :--- |

2 Imran and Tim each think of a number.
$\frac{1}{2}$ of Imran's number is equal to $\frac{2}{5}$ of Tim's number.

The total of their numbers is 144
What number is Imran thinking of?


