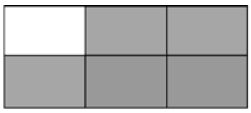
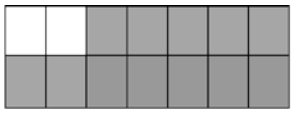
Fractions, Percentages and Decimals

- The number at the bottom of the fraction tells us how many parts the whole is divided into.
  The top number tells us how many we **have**
- Equivalent fractions , $\frac{5}{6} = \frac{10}{12} = \frac{20}{24}$





$\frac{5}{6} = \frac{10}{12}$

- To change into a *decimal* divide 5 ÷ 6 = 0.833
- 24% is read as twenty four percent.
  We can write 24% as fraction $\frac{24}{100}$ or decimal 0.24

Comparing fractions, decimals and percentages

Example 23%, $\frac{4}{9}$, 0.32

To compare it is easier to change the numbers into the same format- decimal.

= 4 ÷ 9 = **0.44** 23% = 23 ÷ 100 = **0.23** 0.32 = **0.32**

Therefore, Therefore starting with the biggest $\frac{4}{9}$, 0.32 and 23%

Calculating with fractions

- The word 'of', min a question means 'multiply'
  e.g. $\frac{5}{6}$ of 42 means $\frac{5}{6}$ x 42
  $\frac{5}{6}$ of 42 = 42 ÷ 6 = 7 x 5 = 35
  $\frac{5}{6}$ of 42 = 35

#TopTip
÷ by the bottom
X by the Top

Ratio

- A ratio compares two measures of the same type.
  e.g. If A = 3cm and B is 7cm then the ratio of A to B A : B is 3 : 7
  Any fraction, percentage, decimal or ratio can be written in any of the other formats
  e.g. 3 : 4 as $\frac{3}{4}$ or 0.75 or 75%

- To divide by a ratio. Divide £600 between two people in the ratio 2 : 3
  Add the parts 2 + 3 = 5.
  Divide the amount by 5 therefore 600 ÷ 5 = 120
  The first person gets 2 x 120 = £240
  The second person gets 3 x 120 = £360