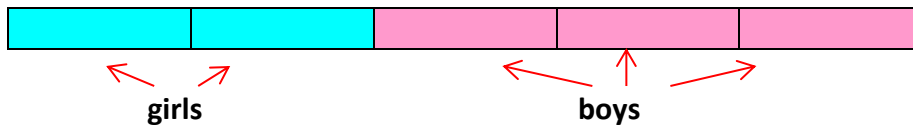


A fraction compares a part to the whole

There are 15 girls and 18 boys in a particular class. What fraction of the total class are girls?

Diagram



Estimate

From the diagram it is clear that girls account for less than a $\frac{1}{2}$ of the total. Therefore the answer will be less than a $\frac{1}{2}$.

Calculate

The total (or the whole) in this case is the total number of students.
 $15 + 18 = 33$.

The fraction of the class comprising of girls is $\frac{15}{33}$.

$$\frac{15}{33} = \frac{\cancel{3}(5)}{\cancel{3}(11)} = \frac{5}{11}$$

Check

Answer is in line with the estimate

To write a fraction in its simplest form, look to see if there is a highest common factor to the numerator and the denominator.

A ratio compares a part to a part

There are 15 girls and 18 boys in a particular class. What is the ratio of girls to boys in that class.

Estimate

From the figure above there are only a few more boys than girls. Therefore the ratio will be a far less than 1:2 (girls:boys) and closer to 1:1

Calculate

$$\begin{aligned} &15:18 \\ &\cancel{3}(5) : \cancel{3}(6) \\ &5:6 \end{aligned}$$

Ratio is written in its simplest form.

Look to see if the numbers in the ratio have a highest common factor.

Check

5:6 is in line with the estimate.

Avoid common misconceptions such as

$$5:6 \neq \frac{5}{6}$$