### 1.2 Ratios

## Objective: To interpret and use ratios

Where do we use ratios in everyday life?

## Ratio - A comparison of two whole numbers in the same units

5 girls to 7 boys 4 Possible Ways to Write a Ratio

$$
\frac{5}{7} \quad 5: 7 \quad 5 \text { to } 7
$$

Sometimes...

## 5 out of 12

as in 5 girls out of 12 students

## Ratio

## $\frac{28 \text { inches }}{4 \text { feet }}=\frac{28 \text { inches }}{48 \text { inches }}=\frac{7}{12}$

$\rightarrow$ A comparison of two whole numbers in the same units
$\rightarrow$ Always written as two numbers

$$
\frac{7}{12}
$$

$$
7: 12 \quad 7 \text { to } 12
$$

$\rightarrow$ Never write the units
$\rightarrow$ Reduce to simplify

## Simplify each ratio

$$
\begin{aligned}
& \text { 1) } \frac{15}{10}=\frac{3}{2}=\frac{1}{2} \\
& \begin{array}{ll}
2 & \text { 2) } \frac{60}{50}=\frac{6}{5} \\
\text { 3) } \frac{2 \text { weeks }}{5 \text { days }}=\frac{14 \text { days }}{5 \text { days }}=\frac{14}{5}
\end{array}
\end{aligned}
$$

4) 12 out of 40

$$
\frac{12}{40}=\frac{3}{10}
$$

5) Avi wants to divide 30 flowers into two groups, so that the ratio is 2 red to 3 blue flowers.

## Draw a bar diagram to show a

 ratio of 2 to 3.

There are 5 equal sections which has 6 flowers in each. There are 12 red and 18 blue flowers.

