

7. Here is a rule to change miles into kilometres.

Multiply the number of miles by 8
Divide by 5

- (a) Use this rule to change 30 miles into kilometres.
- (b) Write down an equation connecting kilometres (K) and miles (M).
- (c) Use your equation to find the value of M when $K = 100$.
8. (a) Convert 48 kg to grams.

A box contains 280 hockey balls. The hockey balls weigh 48 kg in total.

- (b) Calculate the weight of one hockey ball to the nearest gram.
- One kilogram is approximately 2.2 pounds.
- (c) Estimate the weight of the box of hockey balls in pounds.
9. The same quantity can sometimes be measured in different units.

- (a) Write out the statement below, filling in the missing unit.
Choose the unit from this list:
millimetres, centimetres, metres, kilometres

1 inch = 2.54

- (b) Write out the statement below, filling in the missing unit.
Choose the unit from this list:
millimetres, litres, gallons, cubic metres

4 pints = 2.27

10. Mary is 5 feet 3 inches tall.

1 cm = 0.394 inches

12 inches = 1 foot

- (a) Calculate Mary's height in centimetres. Give your answer to an appropriate degree of accuracy.
- (b) An electronic weighing scale gives Mary's weight as 63.4792 kg. Give her weight correct to an appropriate degree of accuracy.