

Maths Around the World

Distance & Length Around the World

How does the world measure distance?

We all measure distance and length, but different countries may use different units. The mathematics stays the same — only the units change.

India

Commonly uses kilometres (km), metres (m), centimetres (cm) and millimetres (mm).

United States

Commonly uses miles (mi), yards (yd), feet (ft) and inches (in).

United Kingdom

Uses both metric and imperial units in everyday life. Kilometres and metres are widely used, while miles are commonly used for road distances.

One world. Different units. One mathematics.

The Metric System

The metric system is based on powers of 10, which makes many conversions straightforward.

1 kilometre

1,000 metres

1 metre

100 centimetres

1 centimetre

10 millimetres

Example

5 km = 5,000 m

Miles, Yards, Feet & Inches

1 mile

1,760 yards

1 yard

3 feet

1 foot

12 inches

Connecting the Two Systems

Different countries may describe the same distance using different units. These approximate conversions are useful for everyday understanding.

Useful conversions

1 mile $\approx$ 1.61 km

1 kilometre $\approx$ 0.62 miles

1 inch = 2.54 cm

1 foot = 30.48 cm

Can you see the connection?

Imagine someone in India says: “**Delhi is 200 km away.**”

200 km $\approx$ 124 miles

The distance has not changed. Only the unit used to describe it has changed!

The wonderful thing about mathematics

The same mathematical idea can be understood anywhere in the world.

Maths in Real Life

Road Trips

A family in India plans a journey of 300 km.

$$300 \times 0.62 \approx \mathbf{186 \text{ miles}}$$

International Travel

A flight route is approximately 2,000 km.

$$2,000 \times 0.62 \approx \mathbf{1,240 \text{ miles}}$$

Everyday Objects

A ruler is 30 cm long.

Remember: A conversion changes the number and the unit — not the actual distance.

Can You Work It Out?

1. A road trip is **100 km**. Approximately how many miles is this?

2. A walking route is **5 km**. Approximately how many miles?

3. A pencil is **20 cm** long. Approximately how many inches?

4. **Challenge** A family travels **250 miles**. Approximately how many kilometres did they travel?

Quick Conversion Corner

$$\begin{array}{ll} \text{km} \times 0.62 \approx \text{miles} & \text{miles} \times 1.61 \approx \text{km} \\ \text{cm} \div 2.54 \approx \text{inches} & \text{inches} \times 2.54 = \text{cm} \end{array}$$

Maths Connects Us All

Whether we say **100 km** or approximately **62 miles**, we are describing the same distance.

Different countries may use different units...

India → kilometres

United States → miles

United Kingdom → a mixture of metric and imperial units

But the mathematics behind them connects us all.

Different units. Different countries. One mathematics.

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Answers

1. $100 \text{ km} \times 0.62 \approx \textbf{62 miles}$

2. $5 \text{ km} \times 0.62 \approx \textbf{3.1 miles}$

3. $20 \text{ cm} \div 2.54 \approx \textbf{7.9 inches}$

Key idea

Conversions help us communicate measurements across countries and understand information wherever we are in the world.

Note: The kilometre/mile conversions in this resource are rounded for everyday use.