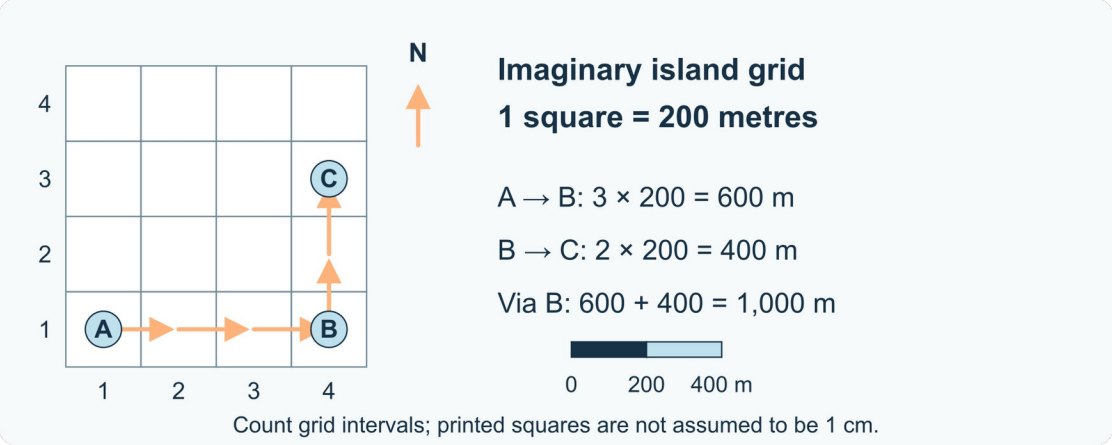
Scale an imaginary island map

Which distances can I calculate from a clearly stated scale?

Use a stated scale to calculate distances on a completely imaginary island.

Investigate | 10-20 minutes, or one small comparison | Scrap paper and a pencil or pen, The supplied original model; no account, purchase or online search needed

Start here Draw three invented places on a square grid: A (1,1), B (4,1) and C (4,3).



Five squares become one kilometre

1 State the scale

Each grid square represents 200 metres. On a hand-drawn map with 1 cm squares, that would be 1 cm to 200 m, or 1:20,000.

2 Count the legs

A to B spans three squares east. B to C spans two squares north. Count the intervals between points, not the number of labelled points.

3 Convert the route

Three squares represent 600 m; two represent 400 m. The route A-B-C is 1,000 m in this model.

4 Label what you know

Add a scale bar and north arrow. Count squares on the supplied drawing; resizing a printed illustration does not make each square exactly 1 cm.

Original model an invented island grid

A, B and C are fictional sites. The graphic is schematic and is not an outdoor navigation map.

• A(1,1) to B(4,1): 3 squares × 200 m = 600 m.

• B(4,1) to C(4,3): 2 squares × 200 m = 400 m.

• Via B, the total is 1,000 m. The straight line A-C is a different distance.

What this example can show Map distance alone does not establish a real route, journey time, access or terrain. The supplied grid must be read by its labels or scale bar, not assumed physical print size.

A different way

Count intervals aloud, point to the scale bar, or direct someone else to note the calculations. A ruler is optional.

If you want to go further

Change the scale to 100 m per square without moving any points. Recalculate the two legs and route total.

Something to notice

Did I count spaces between points or count the points themselves?

Read or explore more

Horizon topic Maps Scale

https://launchhorizonhq.com/learn/maps-scale/

Horizon topic Directions Coordinates

https://launchhorizonhq.com/learn/directions-coordinates/

Horizon topic Geography

https://launchhorizonhq.com/learn/geography/

Geoscience Australia What is Map Scale?

https://www.ga.gov.au/scientific-topics/national-location-information/topographic-maps-data/basics/what-is-map-scale

Geoscience Australia Map Reading Guide: How to use Topographic Maps

https://www.ga.gov.au/bigobj/GA7194.pdf