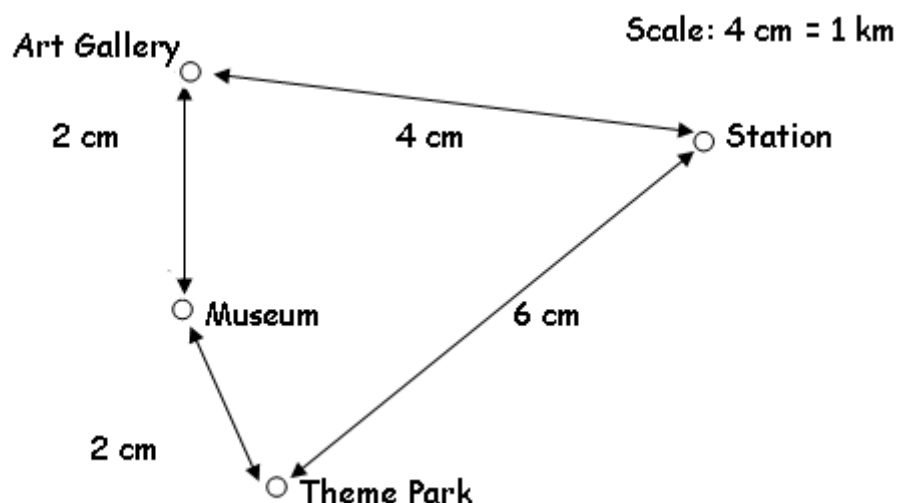## Using scales 2

Multiplication isn't always the correct operation to use when you've taken measurements from a map.

For example, Gita is visiting a nearby town and wants to visit some of the places of interest. She has a local map, which uses a scale of 4 cm to 1 km. She uses a ruler to measure distances on the map to the nearest cm.

The scale is 4 cm to 1 km, so 1 cm represents 0.25 km (a quarter of a kilometre). To find the distance in kilometres Gita needs to **divide** her measurements by four.

Gita measures the distance between the station and the art gallery as 4 cm. 4 ÷ 4 = 1. So the actual distance is 1 km.

The distance between the art gallery and the museum is 2 cm. $2 ÷ 4 = \frac{1}{2}$. So the actual distance is 0.5 km or half a kilometre.

The distance between the museum and theme park and then to the station is 2 cm + 6 cm, so 8 cm altogether - 8 ÷ 4 = 2 - so the actual distance is 2 km.