

Locus

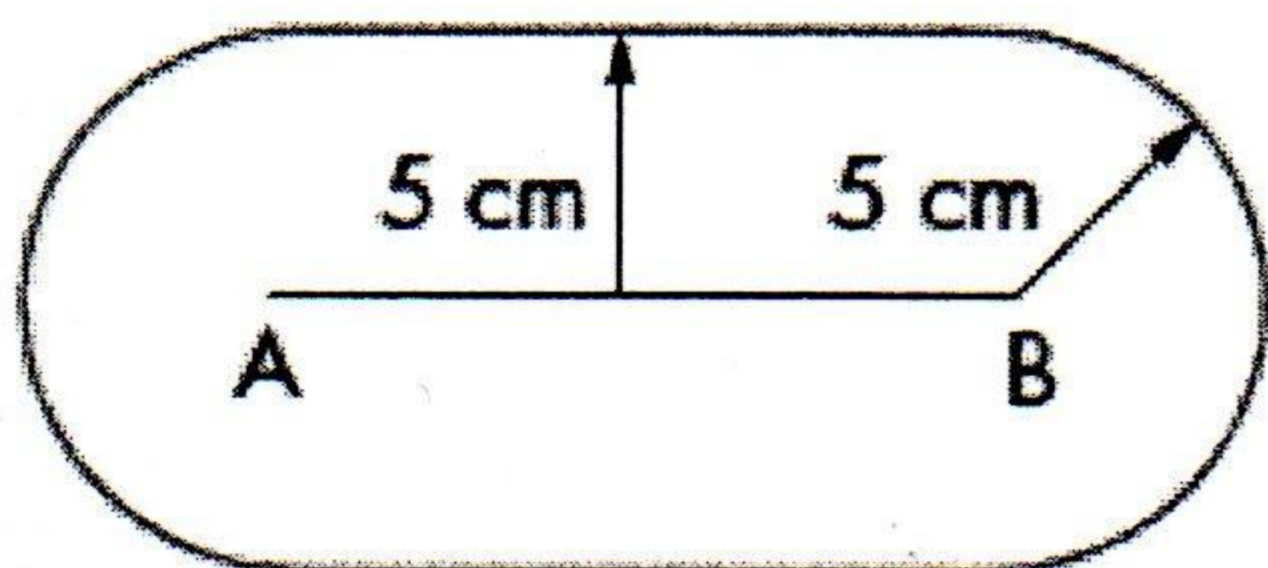
What is locus?

A **locus** (plural **loci**) is the movement of a point according to a rule.

For example, a point that moves so that it is always at a distance of 5 cm from a fixed point, A, will have a locus that is a circle of radius 5 cm.

Another point moves so that it is always 5 cm from a line AB.

The locus of the point P is given as a 'racetrack' shape.



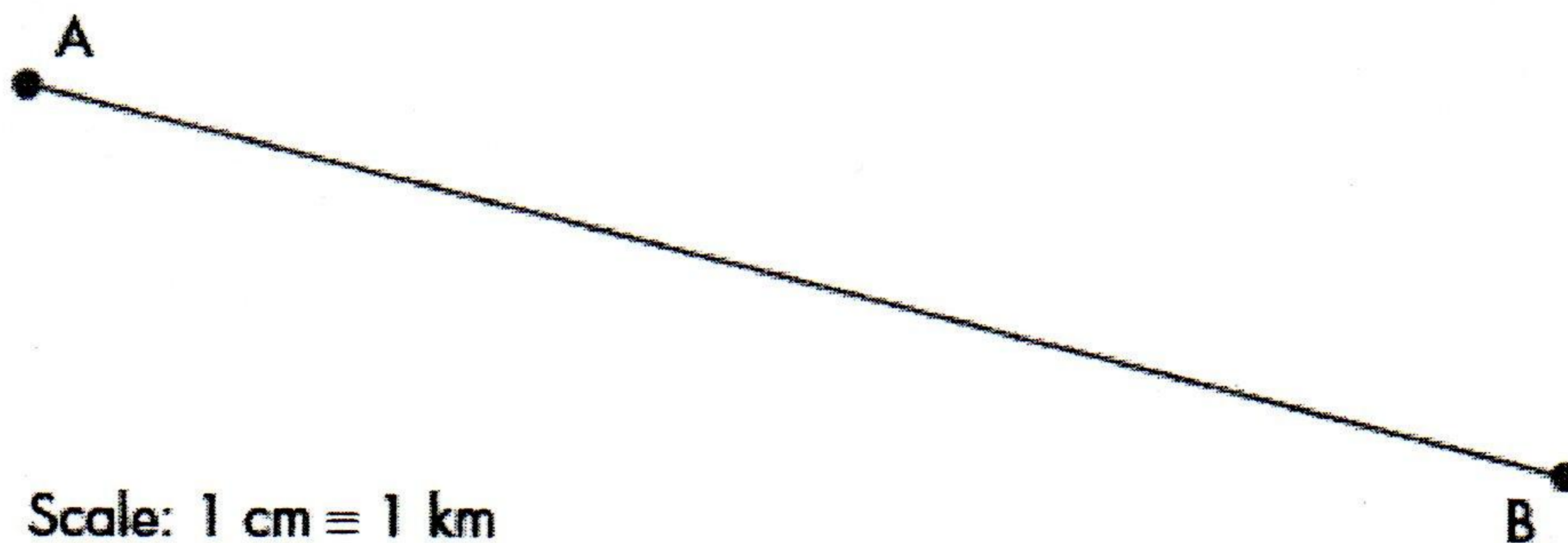
Exercise

Q1. The diagram, which is drawn to scale, A and B, shows two towns, A and B, which are 8 km apart.

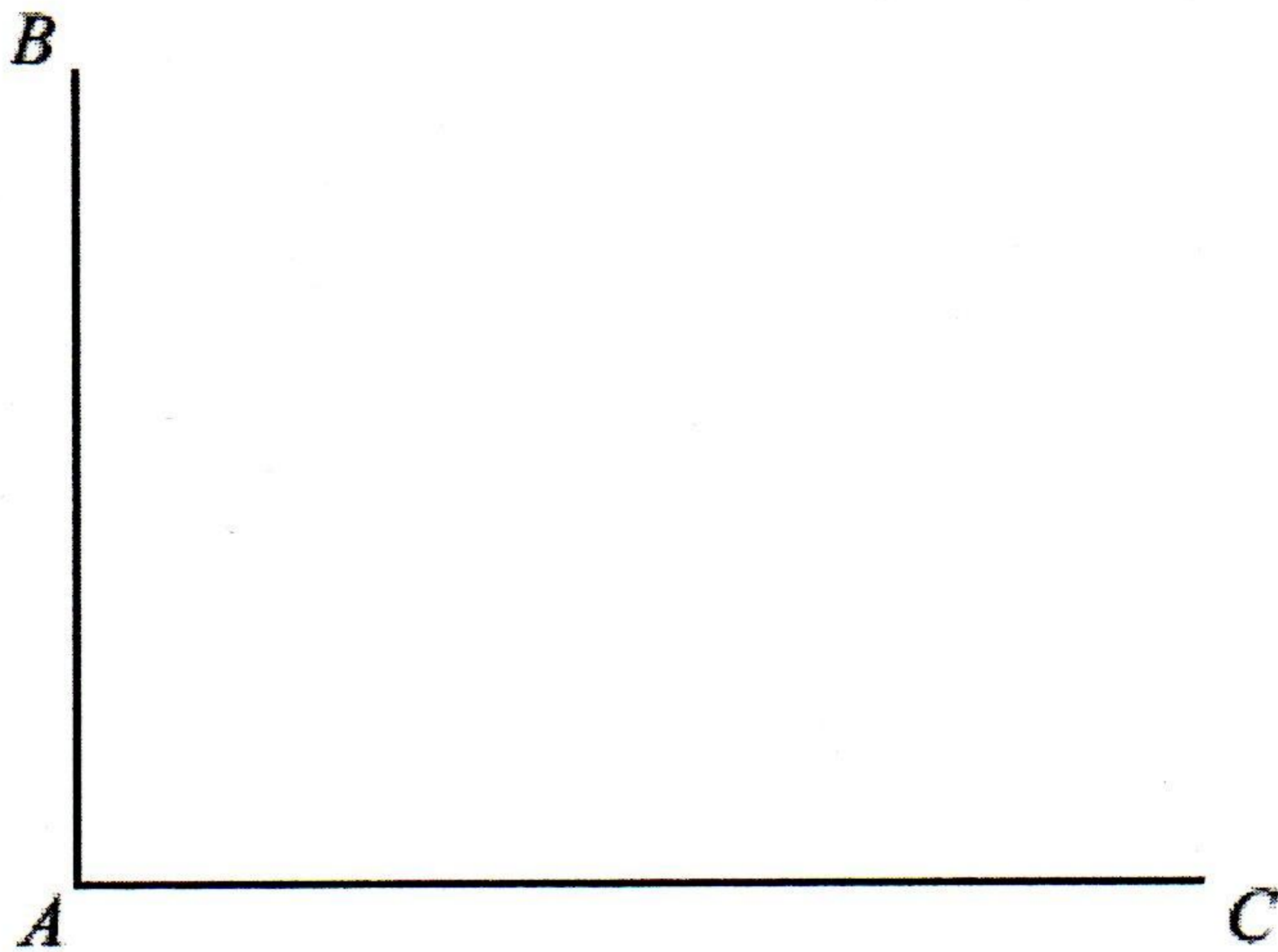
A phone company wants to erect a mobile phone mast. It must be within 5 km of town A and within 4 km of town B.

Copy the diagram accurately.

Show the possible places where the mast could be.



Q2. Draw the locus of all points which are equidistant from the lines *AB* and *AC*.



Q3. Draw locus of all the points moving equidistance from the point *A* and *B*.



Q4. Draw locus of all the points moving 5 cm equidistance from the point.



Q5. Draw locus of all the points moving 5 cm equidistance from the line *A* and *B*.