

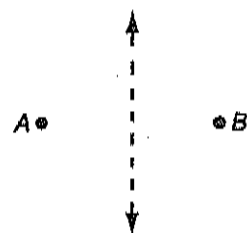
FIVE FUNDAMENTAL LOCI

Locus

- 1) When you see: equidistant from two points

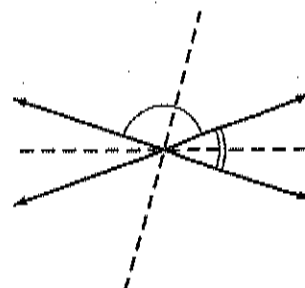
You write: perpendicular bisector of the line between the points

Diagram



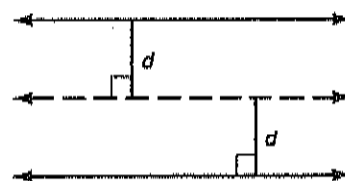
- 2) When you see: equidistant from two intersecting lines

You write: angle bisector of the angle formed



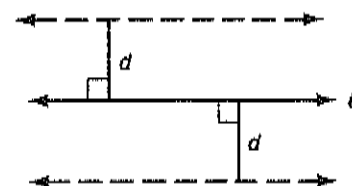
- 3) When you see: equidistant from two parallel lines

You write: one parallel line, midway between the lines



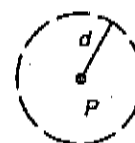
- 4) When you see: a given distance, d , from a line

You write: two parallel lines, on each side, d units away



- 5) When you see: a distance d from a fixed point

You write: a circle w/ radius d of center P .



Remember:

- 1) Draw a diagram & write a sentence
- 2) List the Shape (what), location (where) & distance (How far)
- 3) Set up is drawn solid line, Locus is drawn dotted line

Examples: What is the locus of points:

- 1) equidistant from two points, C and D?

the locus is the $\perp$ -bisector of CD.



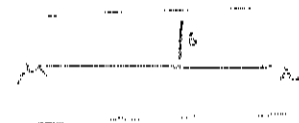
- 2) 5 inches from point Q?

the locus is a circle, centered on Q of a radius of 5.



- 3) 6 centimeters from line MN?

the locus is 2 // lines, on each sides of MN, 6 cm away



- 4) equidistant from the sides of $\angle ABC$?

the locus is the $\angle$ bisector of $\angle ABC$

