

Do-now:

Stand somewhere in the room so that ...

*(leave your stuff where it is)*

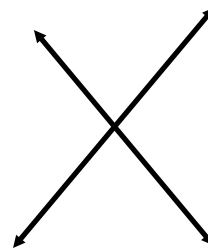
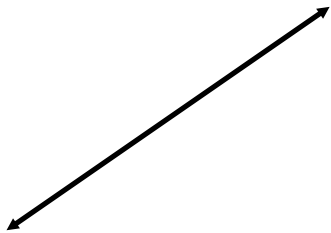
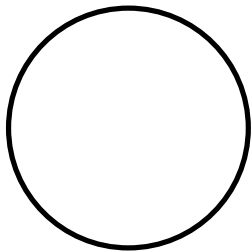
you are equidistant from the wall with the  
doors and the wall with windows

LOCUS = a set of points that satisfies a certain condition

Describe the locus of points that is \_\_\_\_\_.

The locus of points is a \_\_\_\_\_.

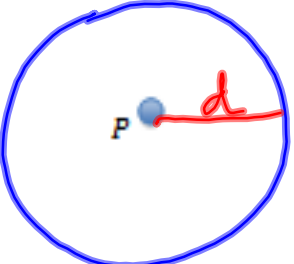
Describe the shapes shown below.



LOCUS THEOREM #1

Use your blocks to show the locus of points 3 inches from the point below.

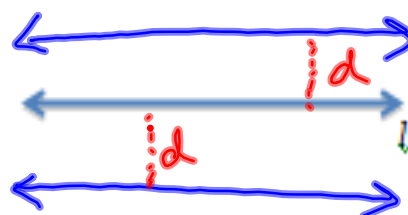


#	THEOREM	PICTURE
1	<p>The locus of points a fixed distance, <math>d</math>, from point <math>P</math> is a <u>circle</u> with the given point <math>P</math> as its center and <math>d</math> as its radius.</p>	<p>Sketch the points <math>d</math> units away from point <math>P</math>.</p> 

2

The locus of points at a fixed distance,  $d$ , from a line,  $l$ , is a pair of parallel lines  $d$  distance from  $l$  and on either side of  $l$ .

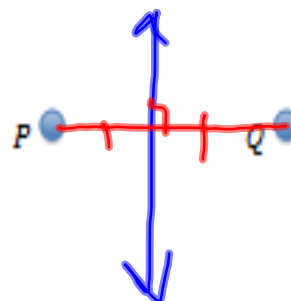
Sketch the points  $d$  units away from line  $l$



3

The locus of points equidistant from two points  $P$  and  $Q$ , is the perpendicular bisector of the line segment determined by the two points.

Sketch the points equidistant from points  $P$  and  $Q$ .





4

The locus of points equidistant from two parallel lines,  $l_1$  and  $l_2$ , is a line parallel to both  $l_1$  and  $l_2$  and midway between them.

Sketch the points equidistant from  $l_1$  and  $l_2$ .



5

The locus of points equidistant from two intersecting lines  $l_1$  and  $l_2$ , is a pair of intersecting lines that bisect the angles formed by  $l_1$  and  $l_2$ .

Sketch the points equidistant from  $l_1$  and  $l_2$ .

