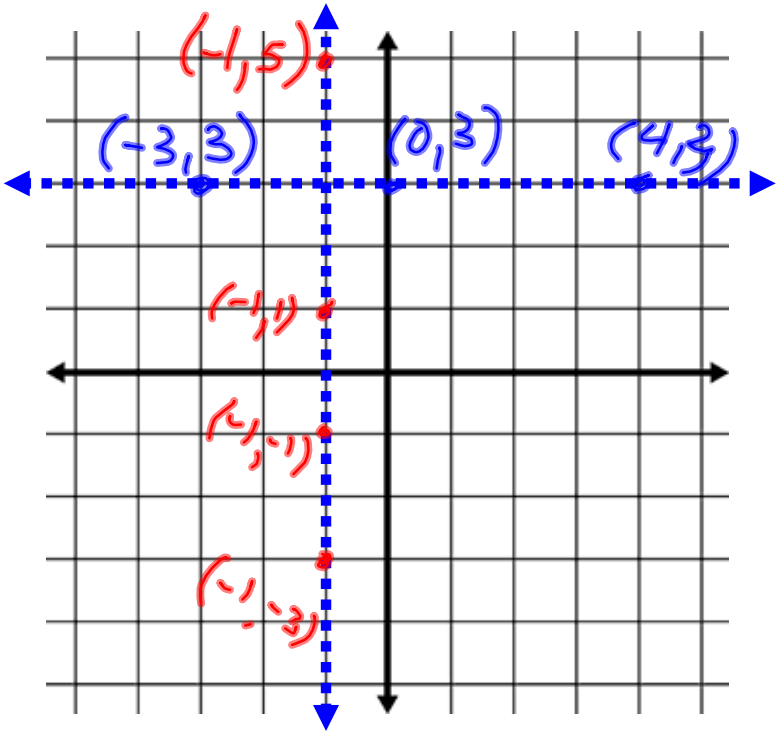
April 02, 2014

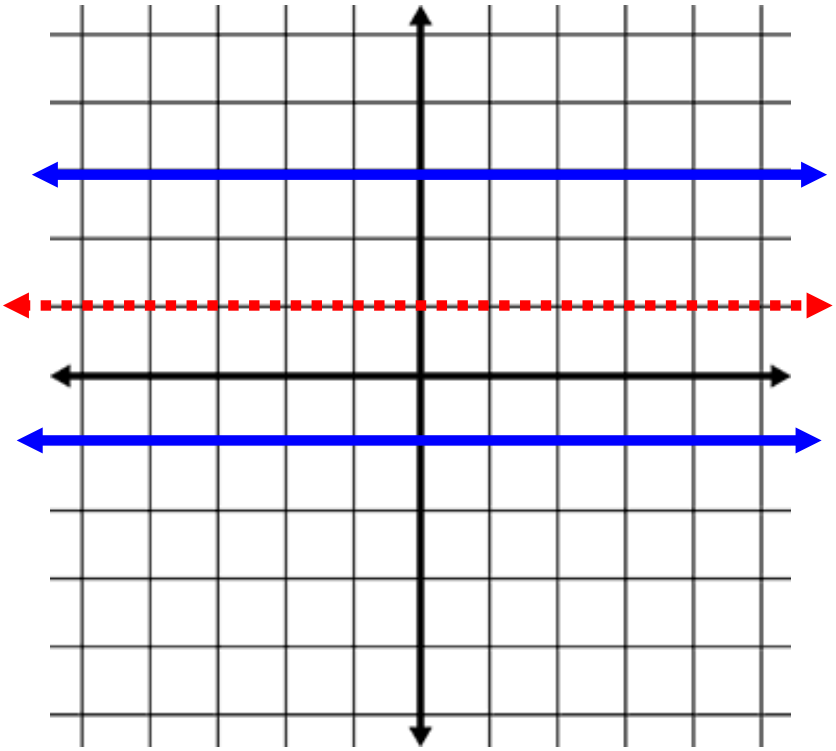
Do-now:

1. Take out Locus Theorem notes

2. Graph the lines x = -1 and y = 3.



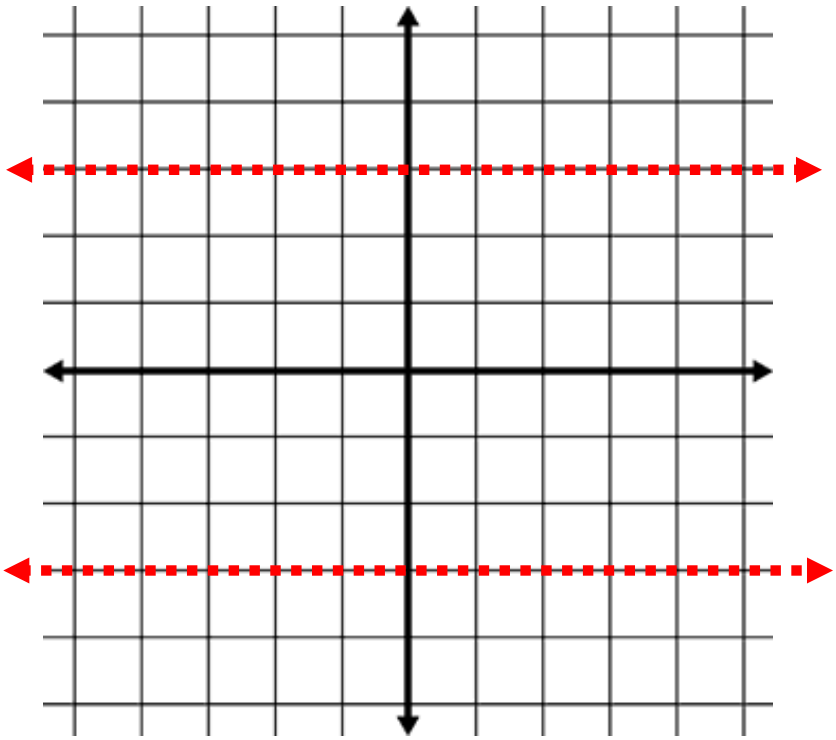
What is the locus of points equidistant from the lines y = 3 and y = -1.



a line

$y = 1$

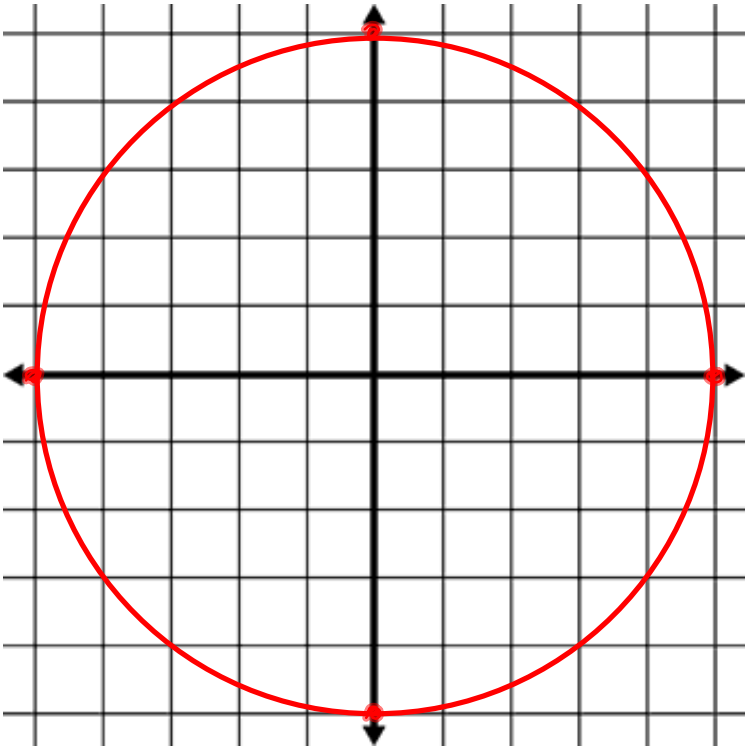
Graph the locus of points 3 units from the x-axis.



parallel lines

$y=3, y=-3$

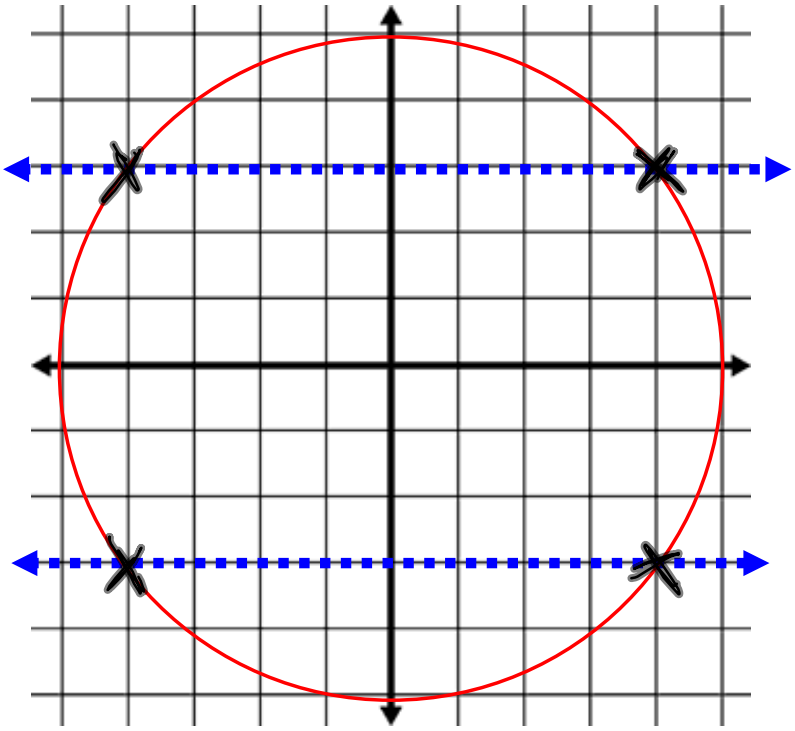
Graph the locus of points 5 units away from the origin.



circle

$x^2 + y^2 = 25$

How many points are both 5 units from the origin and 3 units from the x-axis? Identify the coordinates of the points of intersection.



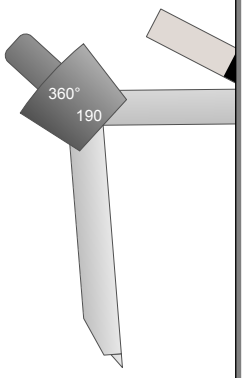
4 points

(-4, 3)

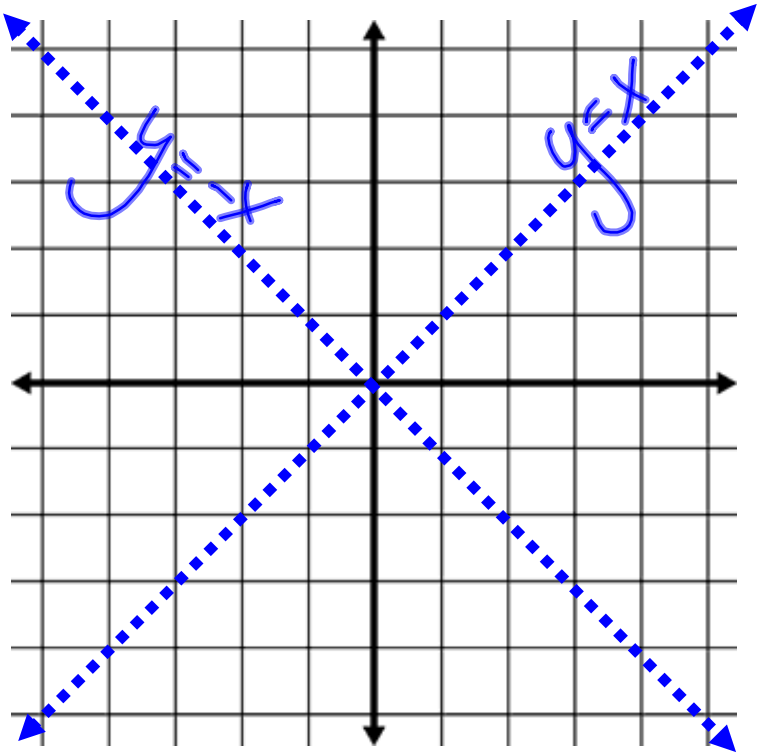
(4, 3)

(4, -3)

(-4, -3)



What is the locus of points equidistant from the *x* and *y* axes?

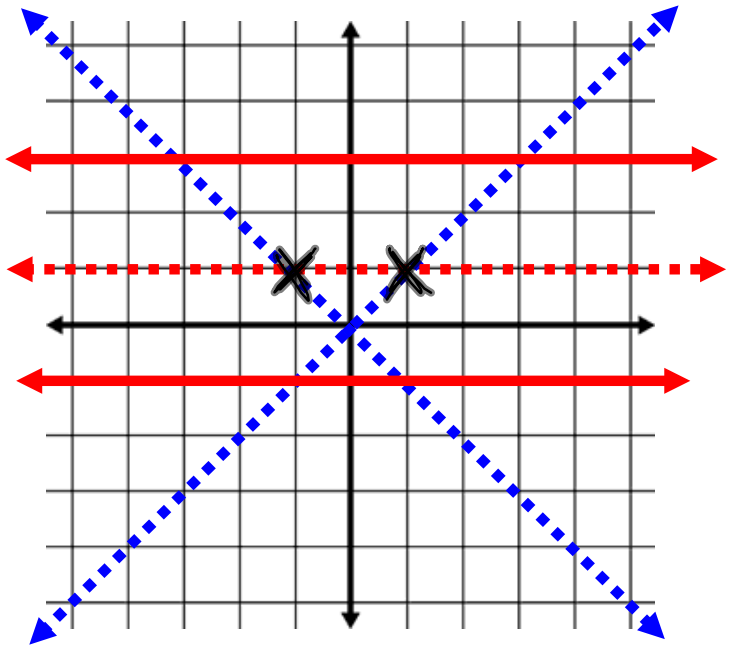


Intersecting lines

$y = x$

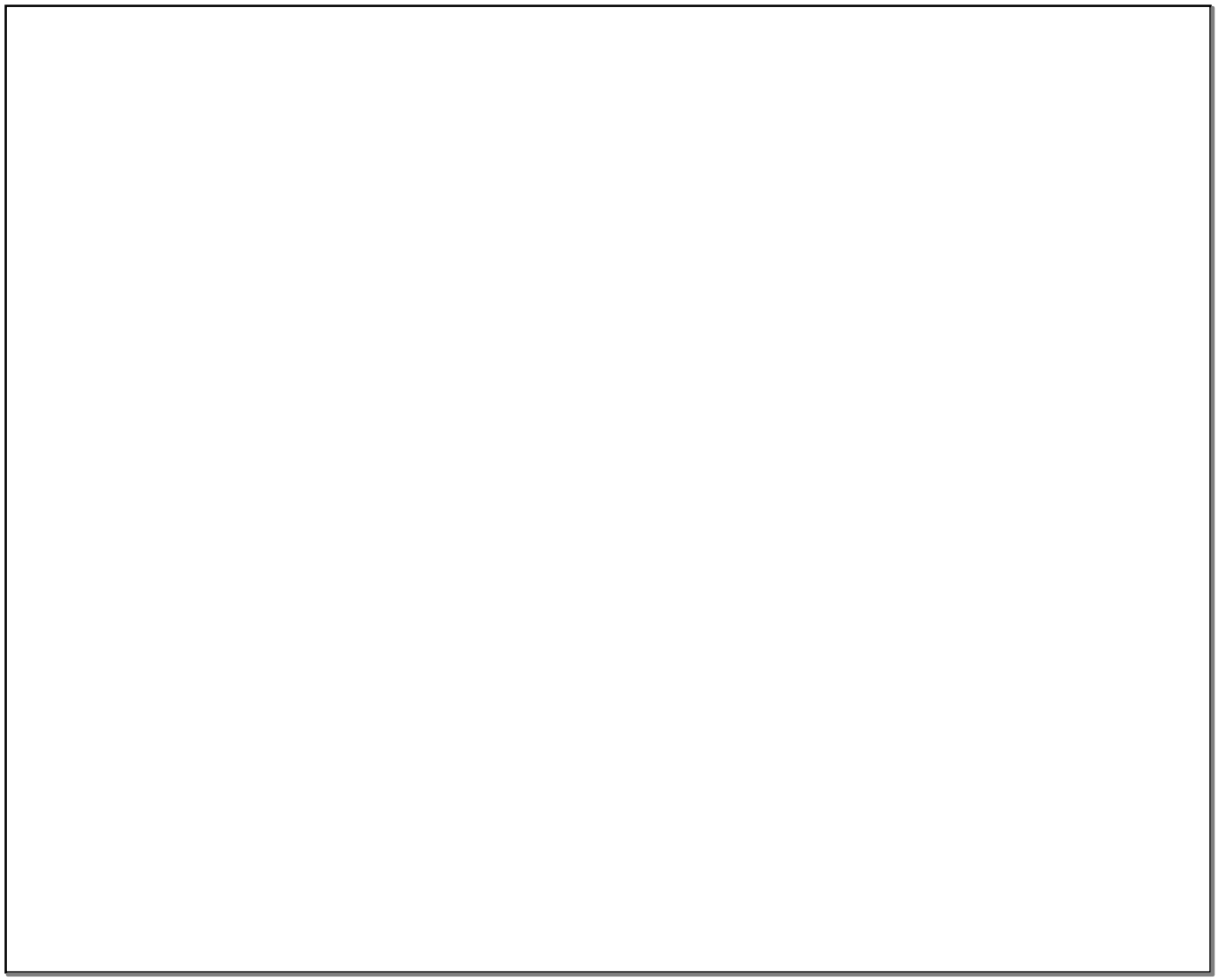
$y = -x$

Graph the locus of points equidistant from the *x* and *y* axes AND equidistant from the lines y = 3 and y = -1?



2 points

(1, 1)

(-1, 1)

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