

Name _____
Date _____

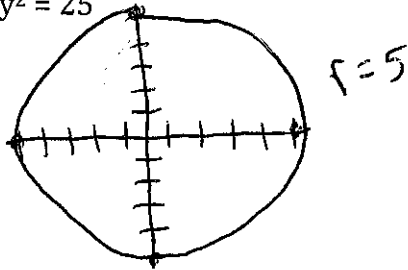
Unit Trig Assignment #2

Draw the following on graph paper.

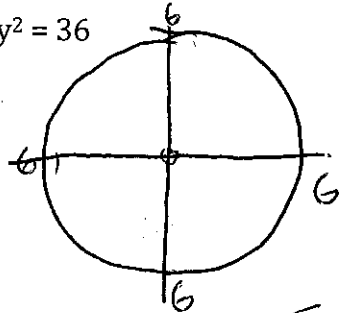
Use your pictures to help you answer the questions.

1. Graph each circle and state the radius.

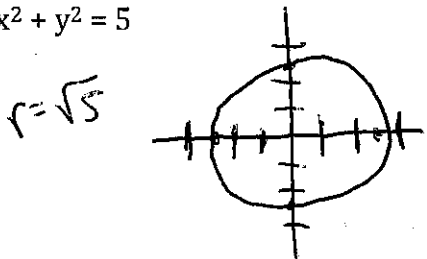
a) $x^2 + y^2 = 25$



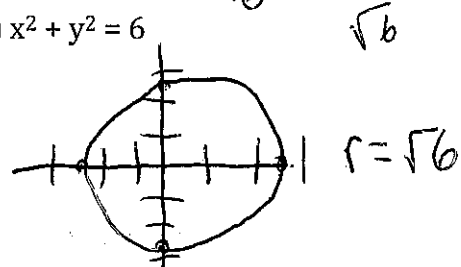
b) $x^2 + y^2 = 36$



c) $x^2 + y^2 = 5$



d) $x^2 + y^2 = 6$



2. Use the graph of 1a to name the points at which the line $x + y = 5$ will intersect the circle $x^2 + y^2 = 25$

x	5
$-x$	$x^2 - 5x$
5	$-5x + 25$

$$2x^2 - 10x = 0$$

$$y = -x + 5$$

$$x^2 + (-x+5)^2 = 25$$

$$2x(x-5) = 0$$

$$x^2 + x^2 - 10x + 25 = 25$$

0 and 5

3. At what points will the line $y = -x$ intersect the unit circle $x^2 + y^2 = 1$

$$x^2 + (-x)^2 = 1$$

$$x^2 + x^2 = 1$$

$$2x^2 = 1$$

$$x^2 = \frac{1}{2}$$

$$x = \pm \sqrt{\frac{1}{2}}$$

4. At what points will the line $x - y = 6$ intersect the circle $x^2 + y^2 = 36$

0 and 6

$$y = x - 6$$

$$x^2 + (x-6)^2 = 36$$

$$x^2 + x^2 - 12x + 36 = 36$$

Find the distance between the following points.

$$2x^2 - 12x = 0$$

5. (3, 7) (6, 3)

6. (4, 7) (8, 1)

$$2x(x-6) = 0$$

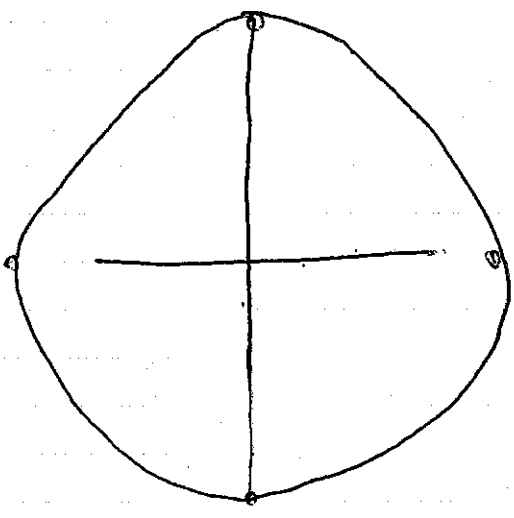
7. (0, 12) (5, 0)

8. (-3, 0) (0, 4)

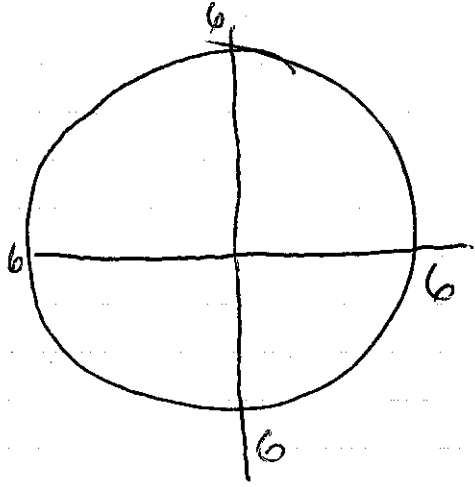
$$\left(\frac{1}{2}\right)^{\frac{1}{2}}$$

Chapter 10 Assignment #2

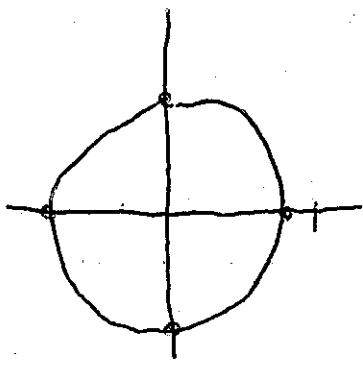
1) $x^2 + y^2 = 25$
 $r = 5$



2) $x^2 + y^2 = 36$
 $r = 6$

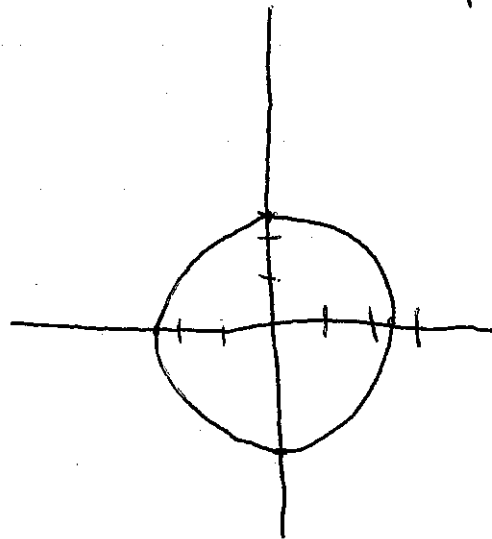


3) $x^2 + y^2 = 5$
 $r = \sqrt{5}$



d) $x^2 + y^2 = 6$

$r = \sqrt{6}$
 $r \approx 2.4$



Assignment #2

② $x^2 + y^2 = 25$ $x + y = 5$

$y = 5 - x$

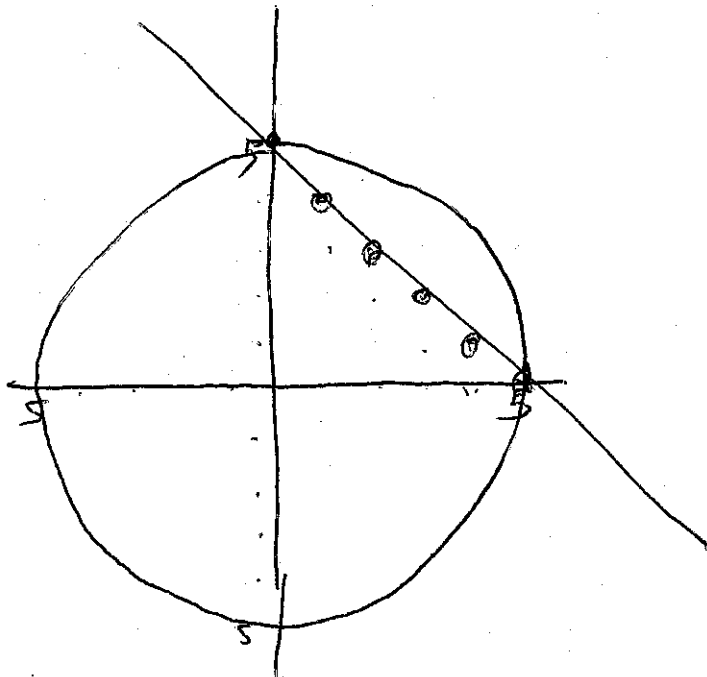
$x^2 + (5-x)^2 = 25$

$x^2 + x^2 - 10x + 25 = 25$

$2x^2 - 10x = 0$

$2x(x-5) = 0$

$x = 0$ $x = 5$



③ $y = -x$ intersect $x^2 + y^2 = 1$

$x^2 + (-x)^2 = 1$

$2x^2 = 1$ $x^2 = \frac{1}{2}$

$x = \pm \frac{1}{\sqrt{2}}$

④ $x^2 + y^2 = 36$ $x - y = 6$

$y = x - 6$

$x^2 + (x-6)^2 = 36$

$x^2 + x^2 - 12x + 36 = 36$

$2x^2 - 12x = 0$

$2x(x-6) = 0$

0 and 6