Conic Sections - Circles and Ellipses Name: _____

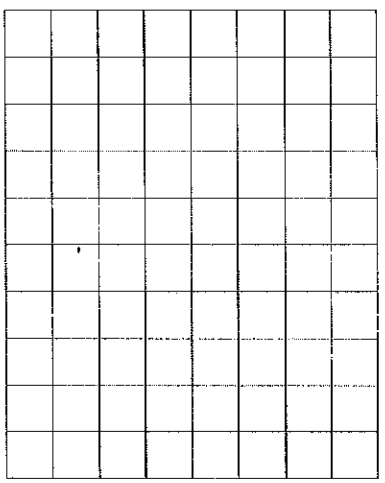
1. Find the equation of a circle with diameter endpoints (4, 5) and (6, 1).

2. Find the equation of a circle with center (5, -3) and tangent to the x-axis.

3. Find the equation of a circle with center (-4, 6) and tangent to the y-axis.

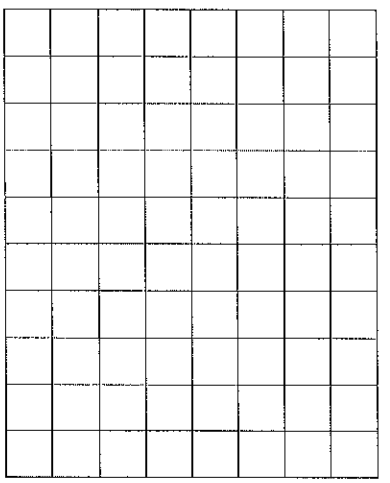
4. Find the center, radius of the circle, and graph.

$(x-1)^2+(y+3)^2=9$



6. Find the center, radius, and graph of the circle.

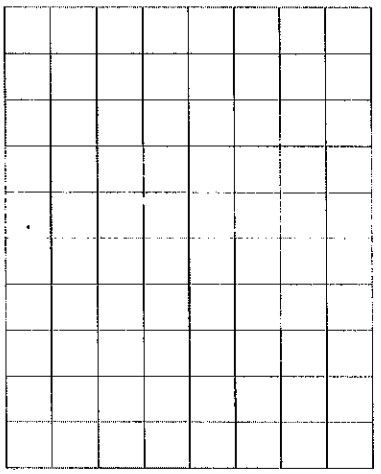
$(x+3)^2+(y-2)^2=4$



5. Find the standard form of the equation of the ellipse with a horizontal major axis of length 8 and minor axis of length 4, center at (-1, 3)

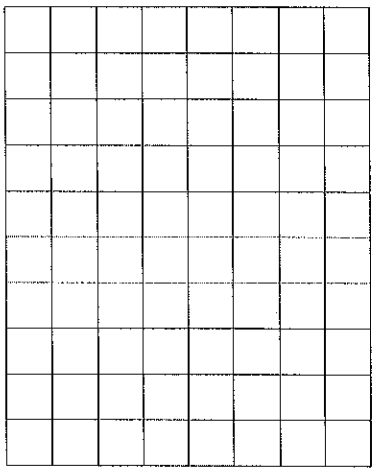
6. Find the center, vertices, co-vertices, foci, and graph of the ellipse.

$2(x+3)^2+8(y-2)^2=32$



8. Find the standard form of the ellipse, then find the center, vertices, co-vertices, foci, and graph.

$9x^2+25y^2-36x-50y-164=0$



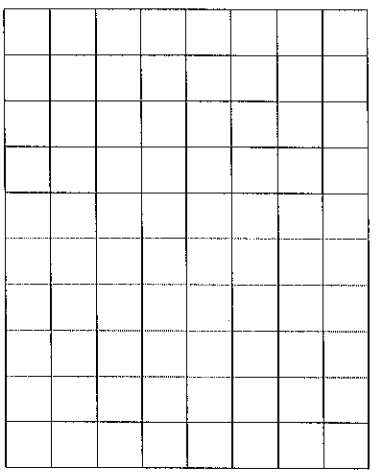
9. Write the equation in standard form.

$4x^2+25y^2-24x+100y+36=0$

10. Find the solution of the system of equations by graphing.

$x^2+y^2=1$

$x^2+9y^2=9$



The equation of the ellipse is $\frac{x^2}{25}+\frac{y^2}{9}=1$. Write an equation for