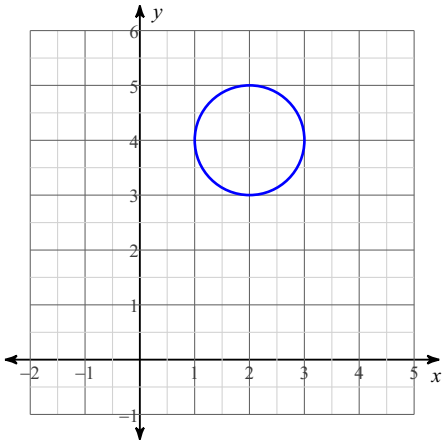
Algebra 2 Honors - Mr. Allen-Black Name_____ ID: 1

Conic Section Review Sheet

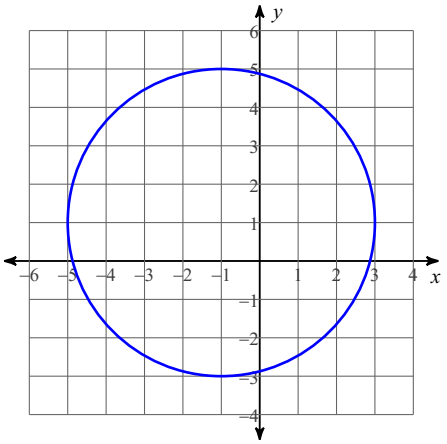
Date_____ Period____

Use the information provided to write the standard form equation of each circle.

1)

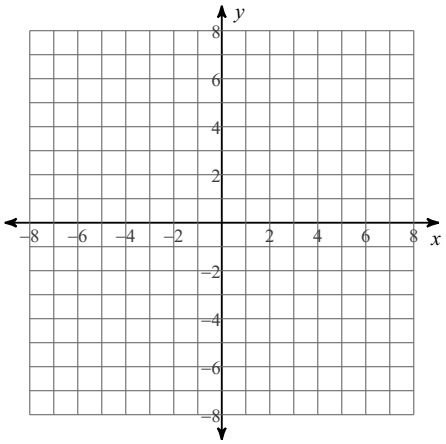


2)

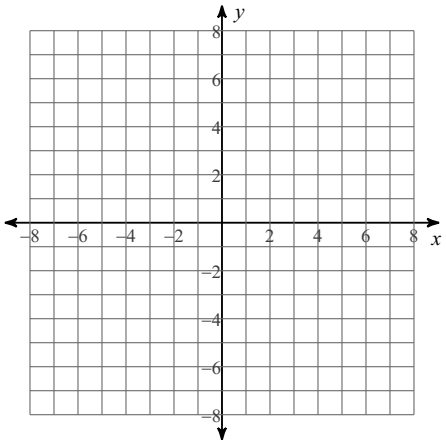


Identify the center and radius of each. Then sketch the graph.

3) $(x-2)^2+(y+3)^2=13$

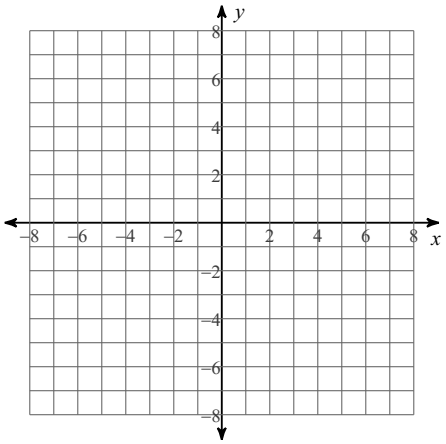


4) $(x+4)^2+(y+1)^2=9$

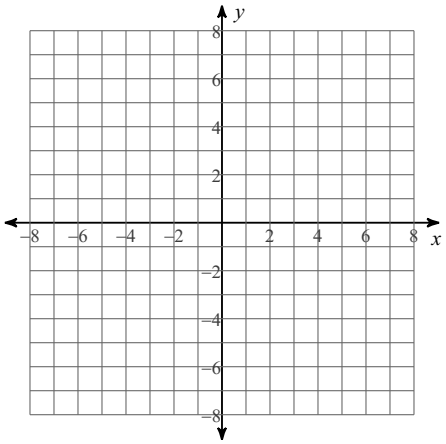


Rewrite each in standard form by completing the square. Then sketch the graph.

5) $x^2+y^2+2x-6y+6=0$

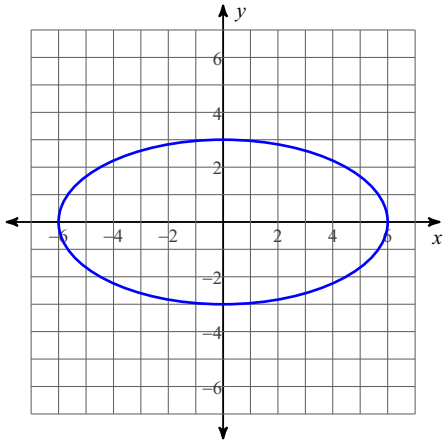


6) $x^2+y^2-8x+2y+9=0$

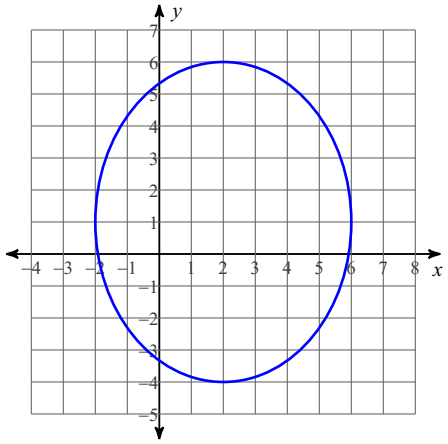


Use the information provided to write the standard form equation of each ellipse.

7)

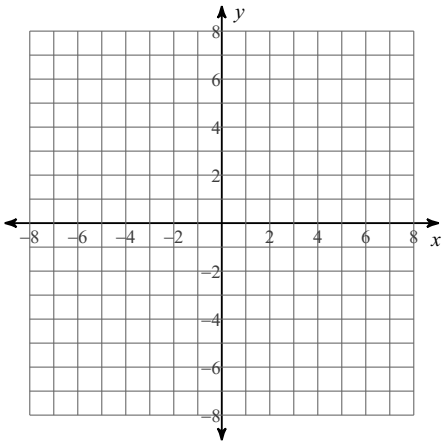


8)

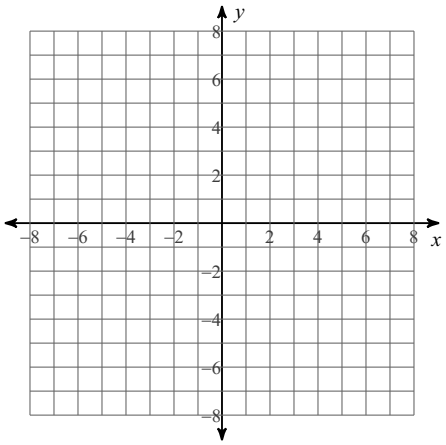


Identify the center, vertices, and co-vertices of each. Then sketch the graph.

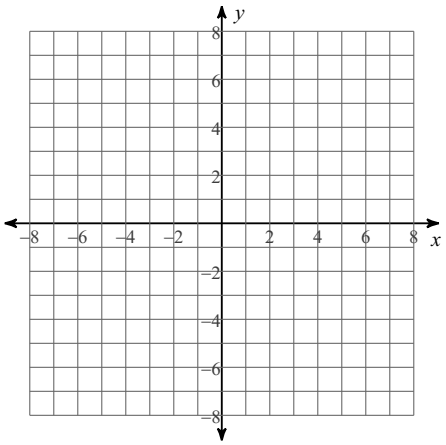
9) $\frac{(x+4)^2}{9} + (y+3)^2 = 1$



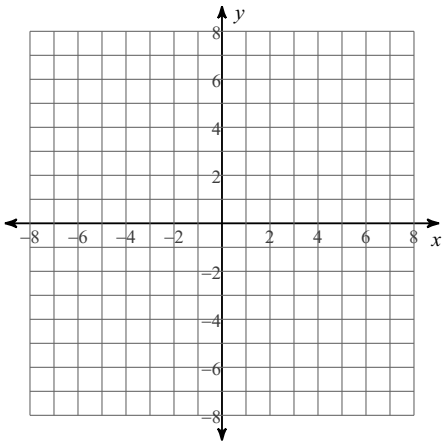
10) $x^2 + \frac{y^2}{49} = 1$



11) $9x^2 + 25y^2 - 18x + 100y - 116 = 0$

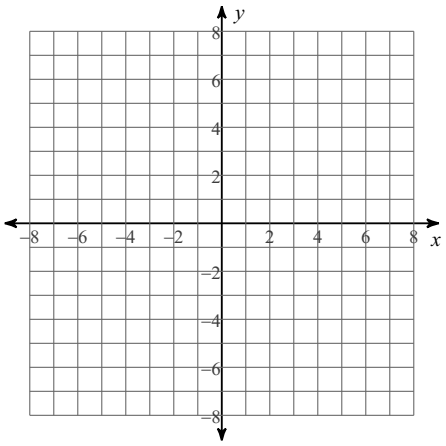


12) $9x^2 + 16y^2 + 18x - 128y + 121 = 0$

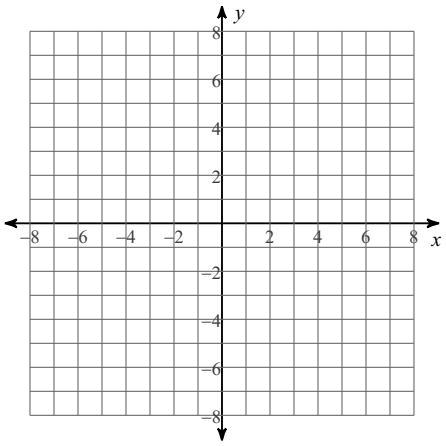


Identify the vertices of each. Then sketch the graph.

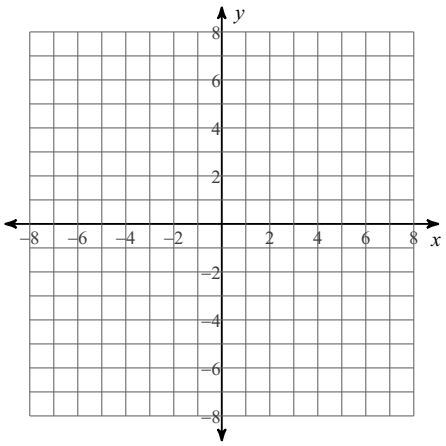
13) $\frac{(y+2)^2}{4} - \frac{x^2}{25} = 1$



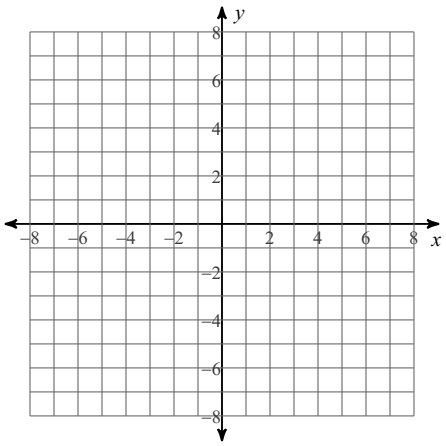
14) $\frac{y^2}{16} - \frac{(x-1)^2}{16} = 1$



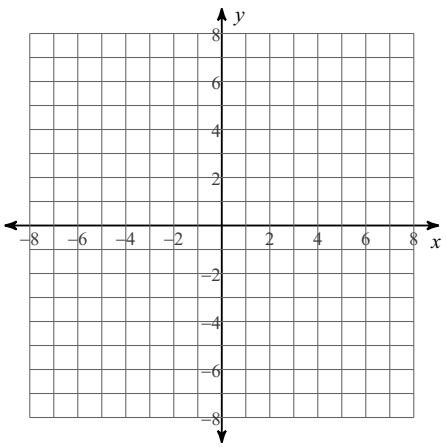
15) $\frac{x^2}{25} - \frac{(y-2)^2}{9} = 1$



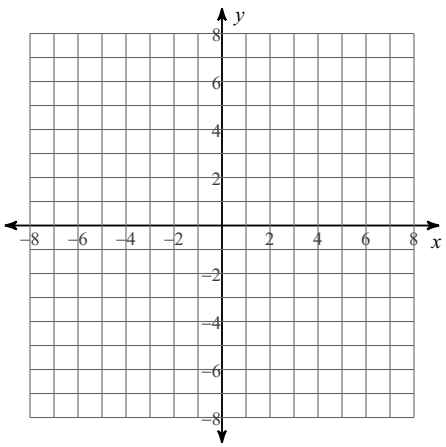
16) $\frac{(x+1)^2}{9} - (y+3)^2 = 1$



17) $\frac{x^2}{9} - \frac{(y-2)^2}{4} = 1$

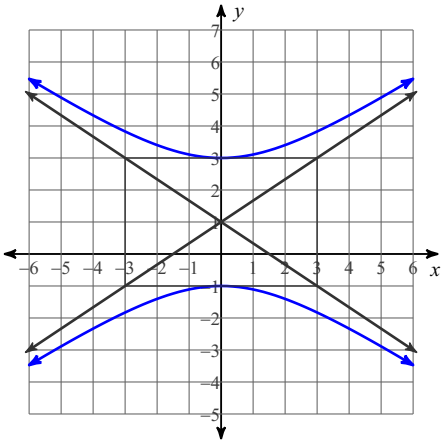


18) $\frac{(y-2)^2}{4} - (x+1)^2 = 1$

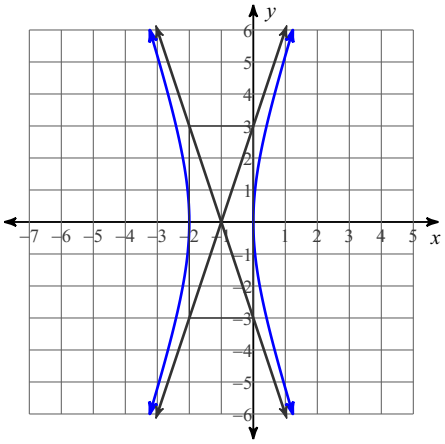


Use the information provided to write the standard form equation of each hyperbola.

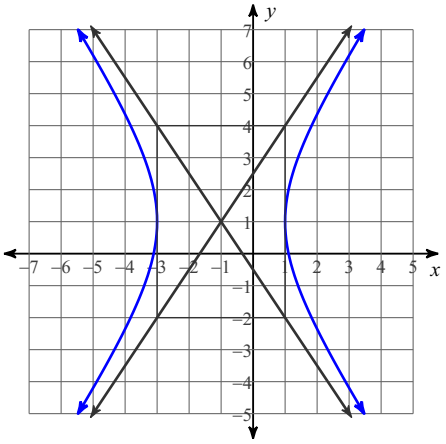
19)



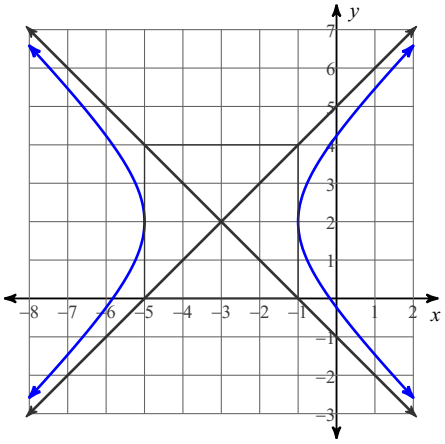
20)



21)

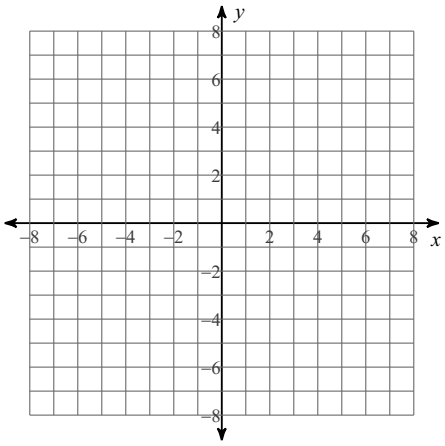


22)

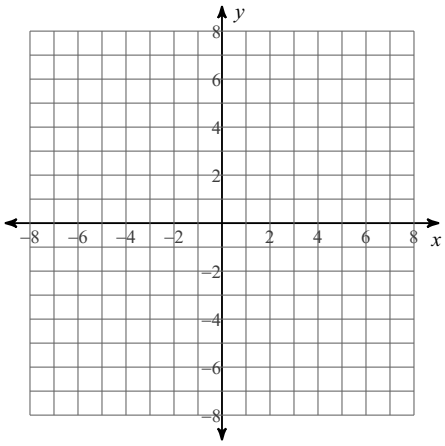


Rewrite the equation in standard form by completing the square. Then sketch the graph.

23) $9x^2 - 4y^2 + 18x - 27 = 0$



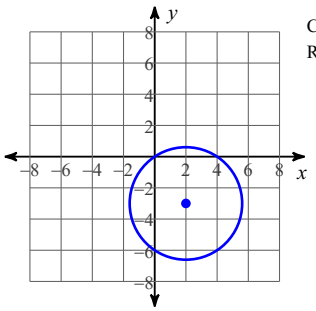
24) $16x^2 - 9y^2 - 32x + 18y - 137 = 0$



Answers to Conic Section Review Sheet (ID: 1)

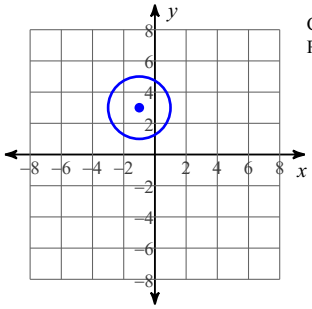
1) $(x-2)^2+(y-4)^2=1$

3)



Center: $(2, -3)$
Radius: $\sqrt{13}$

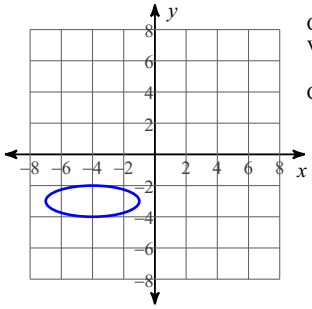
5)



Center: $(-1, 3)$
Radius: 2

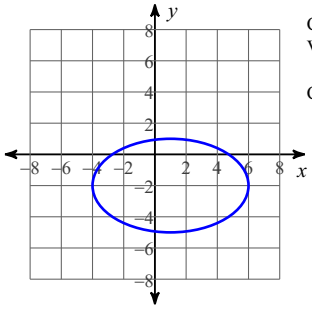
7) $\frac{x^2}{36}+\frac{y^2}{9}=1$

9)



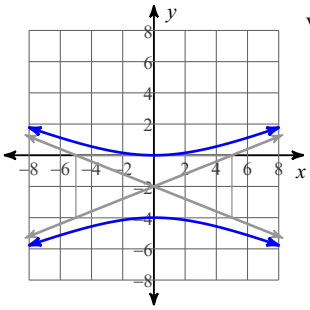
Center: $(-4, -3)$
Vertices: $(-1, -3)$
$(-7, -3)$
Co-vertices: $(-4, -2)$
$(-4, -4)$

11)



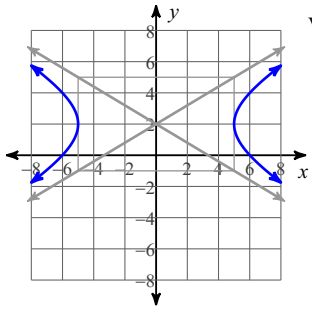
Center: $(1, -2)$
Vertices: $(6, -2)$
$(-4, -2)$
Co-vertices: $(1, 1)$
$(1, -5)$

13)



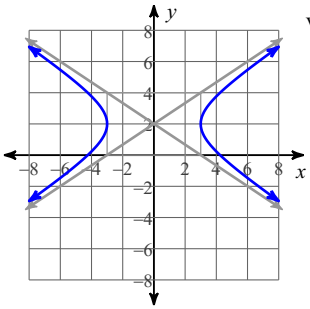
Vertices: $(0, 0)$
$(0, -4)$

15)



Vertices: $(5, 2)$
$(-5, 2)$

17)

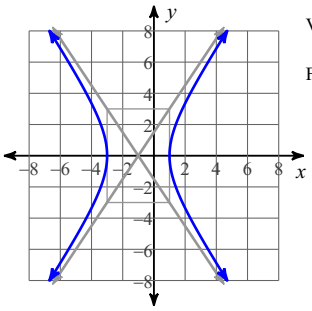


Vertices: $(3, 2)$
$(-3, 2)$

19) $\frac{(y-1)^2}{4}-\frac{x^2}{9}=1$

21) $\frac{(x+1)^2}{4}-\frac{(y-1)^2}{9}=1$

23)



Vertices: $(1, 0)$
$(-3, 0)$
Foci: $(-1 + \sqrt{13}, 0)$
$(-1 - \sqrt{13}, 0)$

