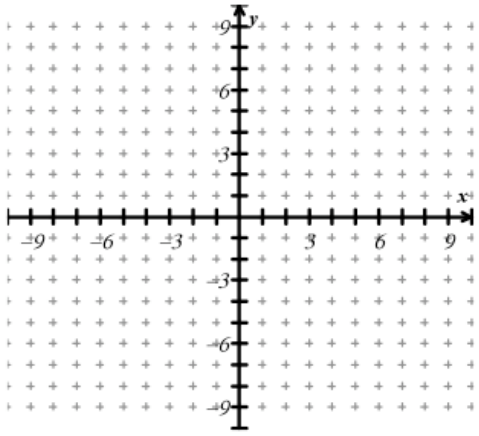
HOMEWORK: ELLIPSES

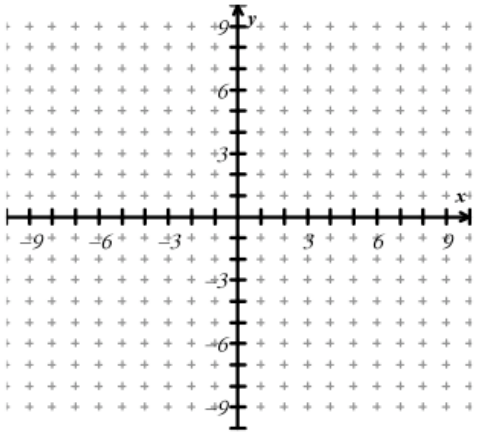
NAME: _____ DAY 3 DUE: _____

Find the vertices and foci of each ellipse. Graph each equation.

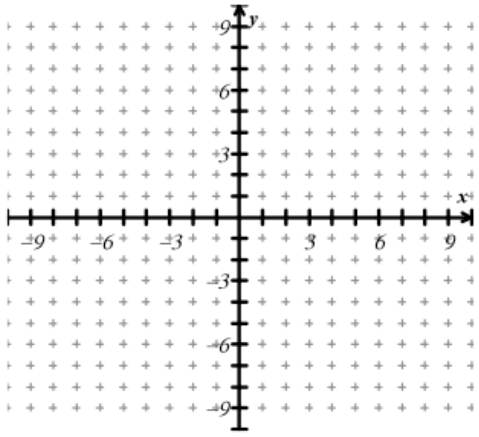
1. $\frac{x^2}{25}+\frac{y^2}{4}=1$



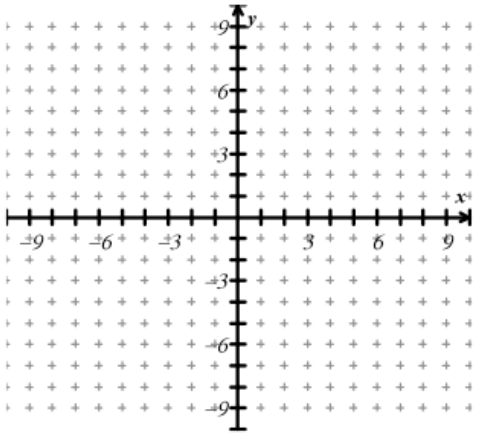
2. $\frac{x^2}{9}+\frac{y^2}{25}=1$



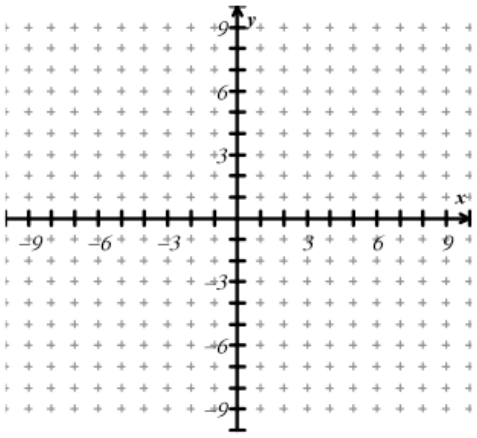
3. $4x^2 + y^2 = 16$



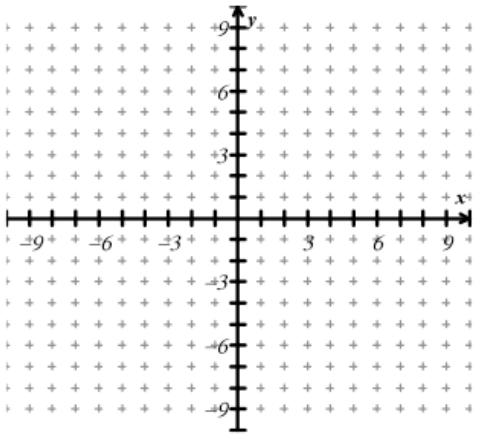
4. $4y^2 + x^2 = 8$



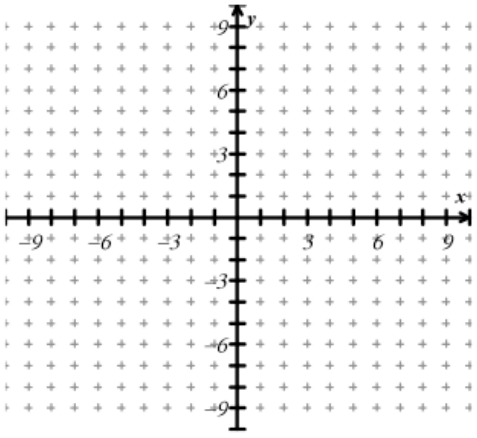
5. $x^2 + y^2 = 16$



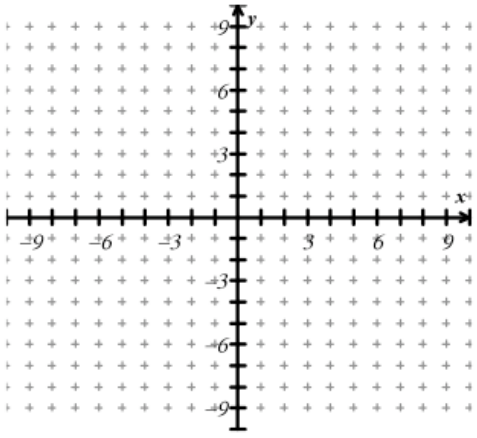
6. Center (0, 0), Focus (3, 0), Vertex (5, 0)



7. Center (0, 0), Focus (0, –4), Vertex (0, 5)

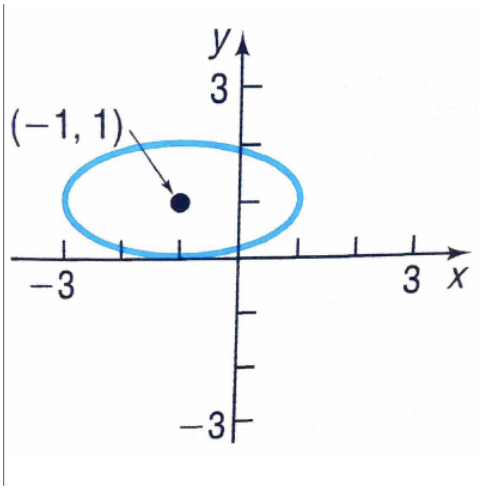


8. Foci at (± 2, 0), length of major axis = 6

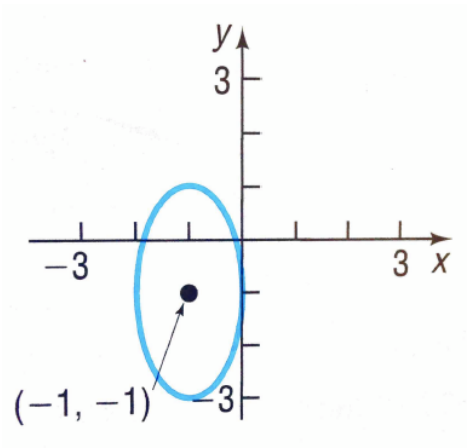


Write an equation for each ellipse.

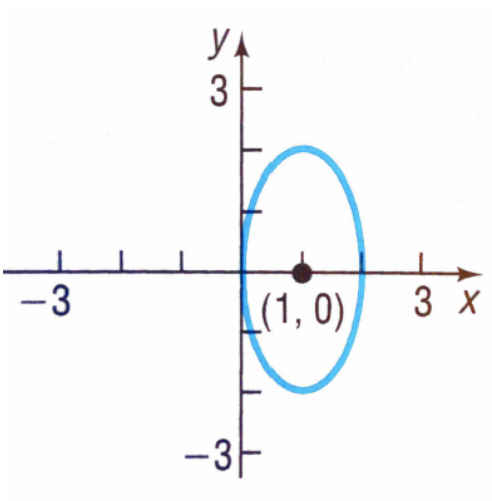
9.



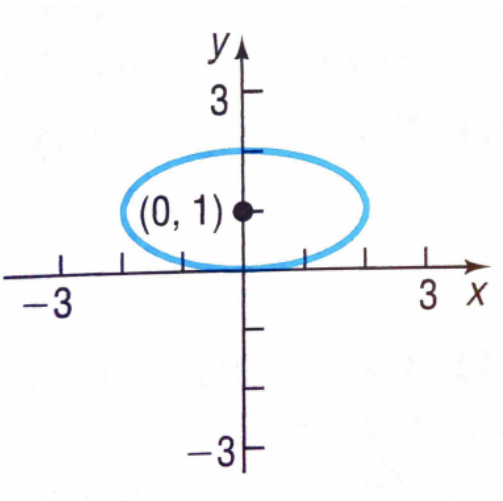
10.



11.



12.



Discuss the equation (find the center, foci, and vertices).

13. $\frac{(x-3)^2}{4}+\frac{(y+1)^2}{9}=1$	14. $(x + 5)^2 + 4(y - 4)^2 = 16$
15. $x^2 + 4x + 4y^2 - 8y + 4 = 0$	16. $2x^2 + 3y^2 - 8x + 6y + 5 = 0$