

Review WS

Tuesday, April 21, 2015 2:57 PM

A series of horizontal blue lines for writing, with a vertical red margin line on the left side.

Precalculus
Conic Section – Circles & Ellipses (Review)

Name:
Period:

1. Determine which equation below is a circle and which is an ellipse.

a. $5x^2 - 9x + 5y^2 - 100y + 13 = 0$

b. $9x^2 - 18x + 4y^2 + 16y - 11 = 0$

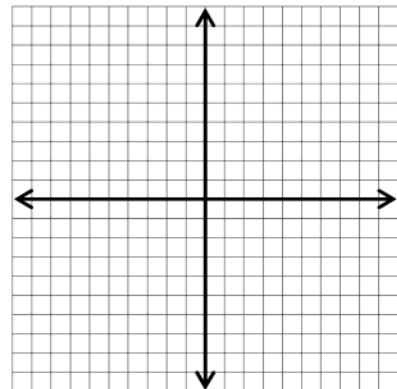
2. For each equation below, put it into standard form for that particular shape.

a. $9x^2 + 4y^2 = 36$

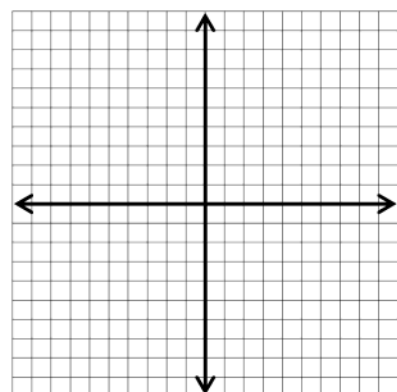
b. $4x^2 + 4y^2 - 16x + 24y + 20 = 0$

c. $4x^2 - 24x + 10y^2 - 100y = -246$

3. Graph the circle: $2x^2 + 2y^2 - 28y + 96 = 0$



4. Graph the ellipse: $4x^2 + 16x + 49y^2 - 294y + 261 = 0$



5. For each ellipse, determine the coordinates of the foci.

a. $\frac{(x+1)^2}{16} + \frac{(y-2)^2}{36} = 1$

b. $\frac{(x-2)^2}{4} + \frac{(y-5)^2}{1} = 1$

6. Write the equation of the ellipse with a major axis from (-3, 5) to (9, 5) and a minor axis that is 4 units long.

7. Write the equation of an ellipse whose focal points are (-3, 2) and (5, 2) and has a minor axis of length 8.

8. Write the parametric equations of an ellipse whose center is at (-2, 3) and whose major axis (vertical) has length 10 and minor axis of length 2.

9. Write the parametric equations of a circle whose center is at (-1, 4) and has radius of length 4.