

PRECALCULUS
CHAPTER 10 REVIEW: CONIC SECTIONS

Name _____

1. Find the distance between the points $(-2, -5)$ and $(6, -1)$.

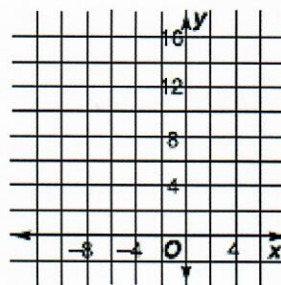
1. _____

2. Write the standard form of the equation of the circle that is tangent to $x = -3$ and has its center at $(1, -3)$.

2. _____

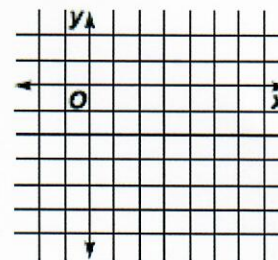
3. Write $x^2 + y^2 + 6x - 14y - 42 = 0$ in standard form. .
Then, graph the equation

3. _____



4. Write $4x^2 + 9y^2 - 24x + 18y + 9 = 0$ in standard form.
Find the center, vertices and foci, then graph the equation.

4. _____

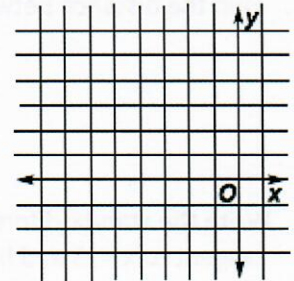


5. Find the equation of the ellipse that has foci at $(2, 1)$ and $(2, -7)$ and $b = 2$.

5. _____

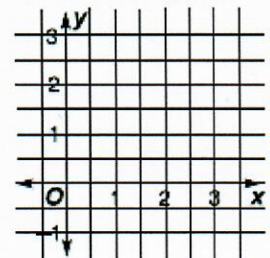
6. Write $4x^2 - y^2 + 24x + 4y + 28 = 0$ in standard form.
Find the center, foci, vertices and equations of the asymptotes.
Then graph the equation.

6. _____



7. Write $-2x + y^2 - 2y + 5 = 0$ in standard form.
Find the vertex, focus, and equations of the directrix and axis of symmetry.
Then graph the equation.

7. _____



8. Find the equation of the ellipse that has its center at the origin,
eccentricity $\frac{2\sqrt{2}}{3}$, and a vertical major axis of 6 units.

8. _____

9. Identify the conic section represented by $x^2 - 3xy + y^2 = 5$.

9. _____