

11.4 Corrective Assignment - Classify Conics

Period _____

Classify each conic section and write its equation in standard form.

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

2) $x^2 + y^2 + 2x - 6y + 7 = 0$

3) $4x^2 + y^2 - 32x - 2y + 61 = 0$

4) $-x^2 + y^2 + 8x - 17 = 0$

5) $-x^2 + y^2 - 25 = 0$

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

7) $8x^2 - 20y^2 + 20y - 205 = 0$

8) $9x^2 + 49y^2 + 294y = 0$

9) $9x^2 + y^2 - 18x + 6y + 9 = 0$

10) $-x^2 + 12x + y - 38 = 0$

Answers to 11.4 Corrective Assignment - Classify Conics (ID: 2)

1) Parabola

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

2) Circle

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

3) Ellipse

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

4) Hyperbola

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

5) Hyperbola

$$\frac{y^2}{25} - \frac{x^2}{25} = 1$$

6) Circle

$$(x + 3)^2 + (y + 1)^2 = 4$$

7) Hyperbola

$$\frac{x^2}{25} - \frac{\left(y - \frac{1}{2}\right)^2}{10} = 1$$

8) Ellipse

$$\frac{x^2}{49} + \frac{(y + 3)^2}{9} = 1$$

9) Ellipse

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

10) Parabola

$$y = (x - 6)^2 + 2$$