

Classify the Conic in General Form - Handout #7

Date_____ Hour_____

© 2012 Kuta Software LLC. All rights reserved.

Classify each conic section as a parabola, circle, ellipse or hyperbola.

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

2) $x^2 + y^2 + 4x + 6y - 3 = 0$

3) $4x^2 + y^2 + 8x + 6y - 3 = 0$

4) $4x^2 + 4y^2 + 20y + 9 = 0$

5) $y^2 + x + 6y + 3 = 0$

6) $16x^2 + 49y^2 + 294y - 343 = 0$

7) $x^2 + 36y^2 + 144y + 108 = 0$

8) $x^2 + y^2 - 4x - 6y + 4 = 0$

9) $-25x^2 + 16y^2 + 50x - 425 = 0$

10) $-x^2 + y^2 + 6x - 6y - 4 = 0$

11) $x^2 - 4y^2 - 2x + 8y - 7 = 0$

12) $y^2 + x - 10y + 24 = 0$

13) $49x^2 + 16y^2 + 196x - 588 = 0$

14) $x^2 + y^2 + 4x - 12 = 0$

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

16) $-9x^2 + 4y^2 + 36x - 8y - 68 = 0$

17) $49x^2 + 4y^2 - 196 = 0$

18) $x^2 + 10x + y + 26 = 0$

19) $x^2 + 36y^2 + 2x + 144y + 109 = 0$

20) $4x^2 + 4y^2 - 12x - 71 = 0$

Classify the Conic in General Form - Handout #7

Date_____ Hour_____

© 2012 Kuta Software LLC. All rights reserved.

Classify each conic section as a parabola, circle, ellipse or hyperbola.

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

Hyperbola

2) $x^2 + y^2 + 4x + 6y - 3 = 0$

Circle

3) $4x^2 + y^2 + 8x + 6y - 3 = 0$

Ellipse

4) $4x^2 + 4y^2 + 20y + 9 = 0$

Circle

5) $y^2 + x + 6y + 3 = 0$

Parabola

6) $16x^2 + 49y^2 + 294y - 343 = 0$

Ellipse

7) $x^2 + 36y^2 + 144y + 108 = 0$

Ellipse

8) $x^2 + y^2 - 4x - 6y + 4 = 0$

Circle

9) $-25x^2 + 16y^2 + 50x - 425 = 0$

Hyperbola

10) $-x^2 + y^2 + 6x - 6y - 4 = 0$

Hyperbola

11) $x^2 - 4y^2 - 2x + 8y - 7 = 0$

Hyperbola

12) $y^2 + x - 10y + 24 = 0$

Parabola

13) $49x^2 + 16y^2 + 196x - 588 = 0$

Ellipse

14) $x^2 + y^2 + 4x - 12 = 0$

Circle

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

Circle

16) $-9x^2 + 4y^2 + 36x - 8y - 68 = 0$

Hyperbola

17) $49x^2 + 4y^2 - 196 = 0$

Ellipse

18) $x^2 + 10x + y + 26 = 0$

Parabola

19) $x^2 + 36y^2 + 2x + 144y + 109 = 0$

Ellipse

20) $4x^2 + 4y^2 - 12x - 71 = 0$

Circle