

Daily Agenda

Learning Target: I can write the equation of a conic from its geometrical definition.

Homework	Assessments
9.2 Day 1 Worksheet	Unit 9 Test - 4/19

Diversity is not about how we differ. Diversity is about embracing one another's uniqueness.

- Ola Joseph

Nov 15-8:24 PM

$$2x^2 + 5y^2 = 98$$

$$-2x^2 + y^2 = -2$$

$$\frac{6y^2}{6} = \frac{96}{6}$$

$$y^2 = 16$$

$$y = \pm 4$$

$$2x^2 + 5(4)^2 = 98$$

$$2x^2 + 80 = 98$$

$$2x^2 = 18$$

$$x^2 = 9$$

$$x = \pm 3$$

(3, 4)
(-3, 4)
(3, -4)
(-3, -4)

Apr 10-11:13 AM

$$3(x^2 + y^2 + 6x = 16)$$

$$2x^2 - 3y^2 = 24$$

$$3x^2 + 3y^2 + 18x = 48$$

$$5x^2 + 18x = 72$$

$$5x^2 + 18x - 72 = 0$$

$$2(-6)^2 - 3y^2 = 24$$

$$72 - 3y^2 = 24$$

$$-3y^2 = -48$$

$$y^2 = 16$$

$$y = \pm 4$$

$$(5x - 12)(x + 6) = 0$$

$$x = \frac{12}{5}, -6$$

$$2(\frac{12}{5})^2 - 3y^2 = 24$$

$$\frac{288}{25} - 3y^2 = 24$$

$$\frac{-288}{25} \quad \frac{-288}{25}$$

$$-3y^2 = 12.48$$

$$y^2 = -4.16$$

no sol.

$$(-6, 4)(-6, -4)$$

Apr 10-11:16 AM

9.2 Equations from Geometrical Definitions

Circles
Same coefficient for x^2 and y^2

Ellipse
Different coefficients for x^2 and y^2 , both positive

Hyperbola
One positive and one negative coefficient for x^2 and y^2

Parabolas
Either x^2 or y^2

Feb 9-11:33 AM

Write an equation for the conic described.

A circle with a center at (4, 5) containing the point (3, -2)

$$(x-h)^2 + (y-k)^2 = r^2$$

$$(3-4)^2 + (-2-5)^2 = r^2$$

$$(-1)^2 + (-7)^2 = r^2$$

$$1 + 49 = r^2$$

$$50 = r^2$$

$$(x-4)^2 + (y-5)^2 = 50$$

Feb 15-7:15 AM

Write an equation for the conic described.

A ellipse with a center at (2, -2) focus at (4, -2) and vertex at (7, -2)

$$\frac{(x-h)^2}{(r_x)^2} + \frac{(y-k)^2}{(r_y)^2} = 1$$

$$\frac{(x-2)^2}{25} + \frac{(y+2)^2}{21} = 1$$

$r_x = 5$
 $r_y = 2$

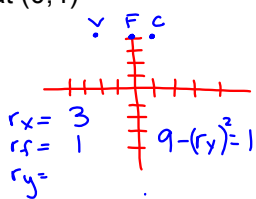
Feb 15-7:15 AM

Write an equation for the conic described.

An ellipse with a center at (1,4)
vertex at (-2,4) and focus at (0,4)

$$\frac{(x-h)^2}{(r_x)^2} + \frac{(y-k)^2}{(r_y)^2} = 1$$

$$\frac{(x-1)^2}{9} + \frac{(y-4)^2}{8} = 1$$



Feb 15-7:15 AM