Happy Wednesday

2/8/17

Conic Quiz Board Review Solutions

Write an equation for the circle described

Three points on the circle:
$(-4, -9)$, $(6, -9)$, and $(-4, 1)$

$$(x-1)^2 + (y+4)^2 = 50$$

Write an equation for the circle described

Center: $(-10, 15)$
Point on Circle: $(-11, 13)$

$$(x + 10)^2 + (y - 15)^2 = 5$$

Write an equation for the conic described

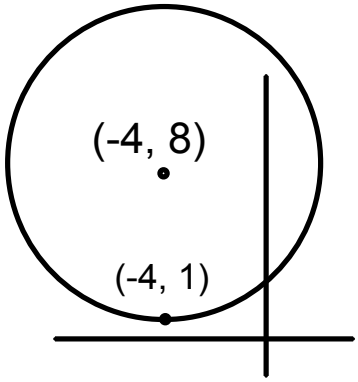
Vertices: $(13, 2), (-9, 2)$
Foci: $(2 + 2\sqrt{10}, 2), (2 - 2\sqrt{10}, 2)$

$$\frac{(x-2)^2}{121} + \frac{(y-2)^2}{81} = 1$$

Write an equation in standard form and graph

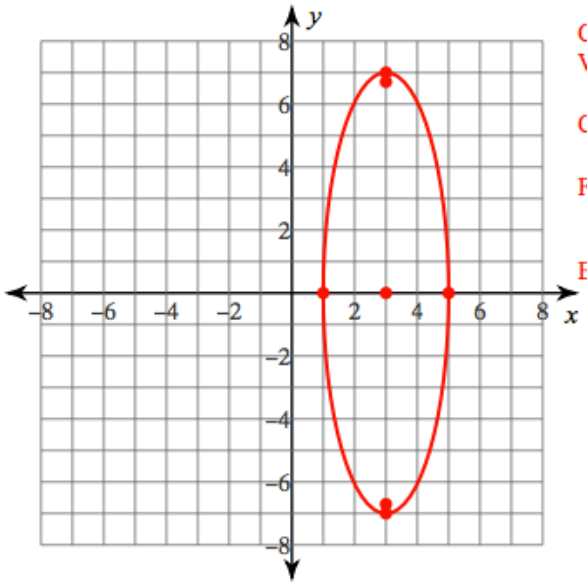
$$x^2 + y^2 + 8x - 16y + 31 = 0$$

$$(x+4)^2 + (y-8)^2 = 49$$



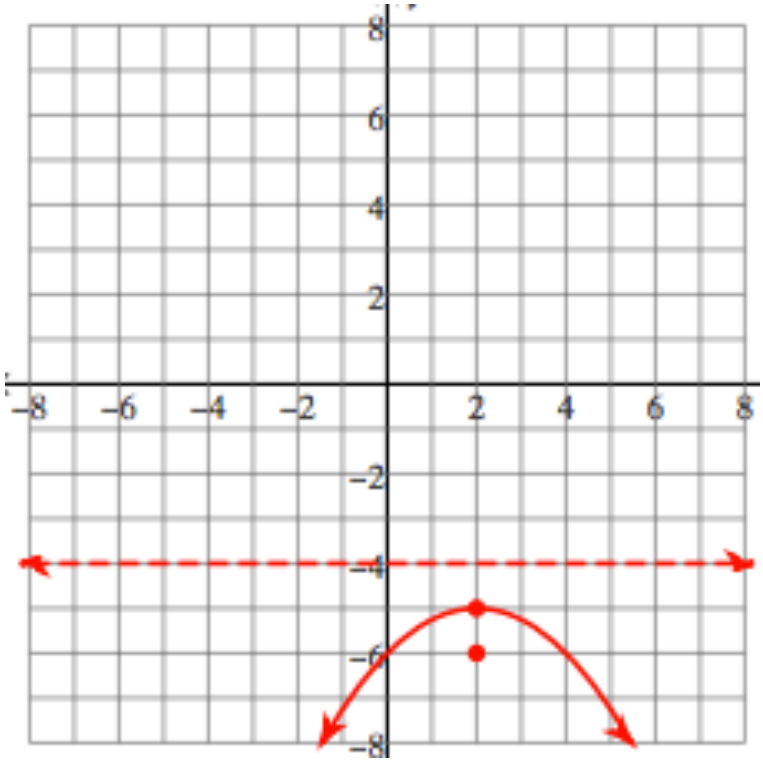
Graph and label important information such as center, vertices, covertices, foci, and eccentricity

$$\frac{(x-3)^2}{4}+\frac{y^2}{49}=1$$



Center: $(3, 0)$
Vertices: $(3, 7)$
$(3, -7)$
Co-vertices: $(5, 0)$
$(1, 0)$
Foci: $(3, 3\sqrt{5})$
$(3, -3\sqrt{5})$
Eccentricity: $\frac{3\sqrt{5}}{7} \approx 0.958$

Write an equation for the parabola below in standard form.



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

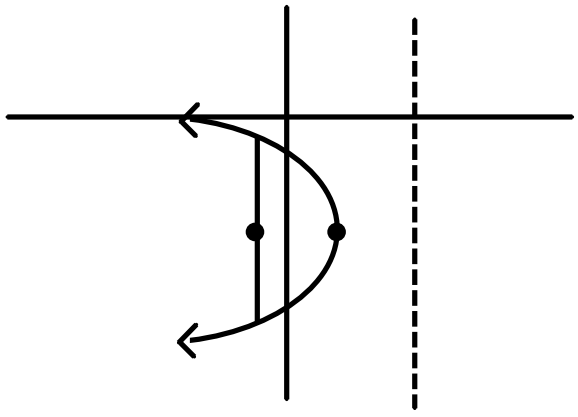
Write an equation in standard form and graph

$$81x^2 + 16y^2 - 324x + 288y + 324 = 0$$

$$\frac{(x-2)^2}{16} + \frac{(y+9)^2}{81} = 1$$

Graph the following conic and label the key features

$$(y+3)^2 = -12\,(x-2)$$



February 08, 2017