Ellipses – Writing Equations

<u>Example 5:</u>

Write each equation in standard form.

$$9x^2 + 4y^2 - 54x + 40y + 37 = 0$$

<u>Example 6:</u>

Write each equation in standard form.

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

<u>Example 7:</u>

Write an equation of each ellipse.

    center: (0, 0)

    vertex: (0, 5)

    co-vertex: (4, 0)

<u>Example 8:</u>

    center: (2, –1)

    vertex: (2, 2)

    minor axis length 2

<u>Example 9:</u>

    vertices: (2, 4) and (2, –2)

    co-vertices: (0, 1) and (4, 1)