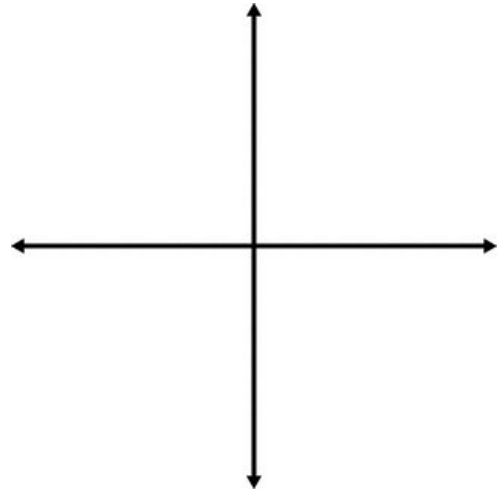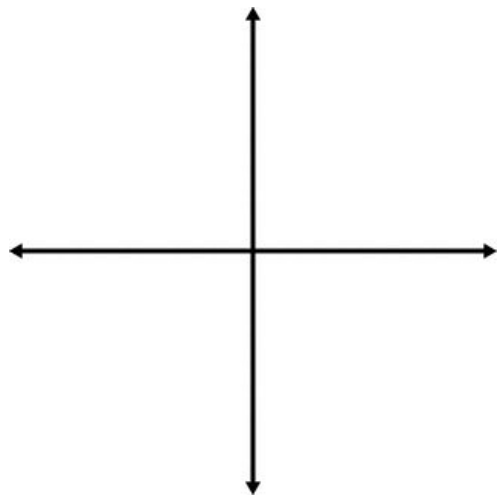## Work Station #1

1. Write each equation in standard form. State whether the graph of the equation is a parabola, circle, ellipse, or hyperbola. Then graph the equation (graph hyperbolas on desmos).

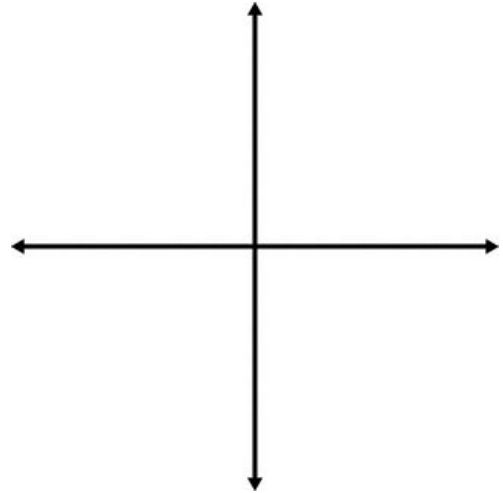   a. $x^2 + 4y^2 = 6x + 16y - 11 = 0$
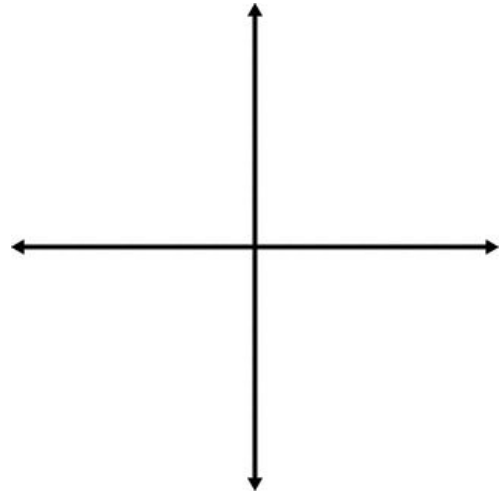
   b. $x^2 + y^2 + 12x - 8y + 36 = 0$

c. $9y^2 - 16x^2 - 18y - 64x - 199 = 0$

d. $6y^2 - 24y + 28 - x = 0$

Work Station #2

2. Without writing in standard form, state whether the graph of each equation is a parabola, circle, ellipse, or hyperbola.

a. $4x^2 + 6y^2 - 3x - 2y = 12$

e. $4x^2 - 3y^2 + 8xy - 12 = 2x + 4y$

b. $5y^2 = 2x + 6y - 8 + 3x^2$

f. $5xy - 3x^2 + 6y^2 + 12y = 18$

c. $8x^2 + 8y^2 + 16x + 24 = 0$

g. $8x^2 + 12xy + 16y^2 + 4y - 3x = 12$

d. $4x^2 - 6y = 8x + 2$

h. $16xy + 8x^2 + 8y^2 - 18x + 8y = 13$