

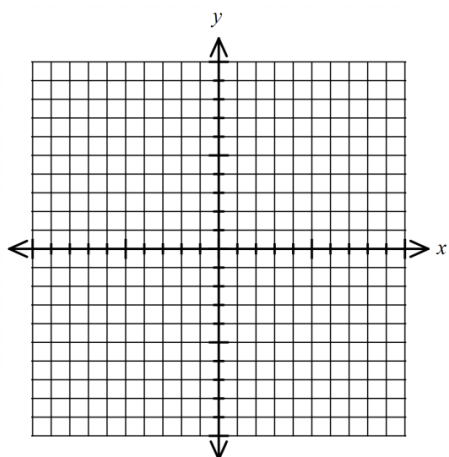
Fun with Graphing Calculators

For each equation, use a **graphing calculator** to fill in the listed information. Use the **min/max function** to find the vertex. Use the **zeroes function** to find the x-intercept(s). Use the **Calc – Value function** to find the y-intercept. Use the **table function** to record 3 points to the left of the vertex and 3 points to the right.

A. $y = -x^2 + 2x + 3$

Xmin = -10, Xmax=10, Ymin = -10, Ymax = 10

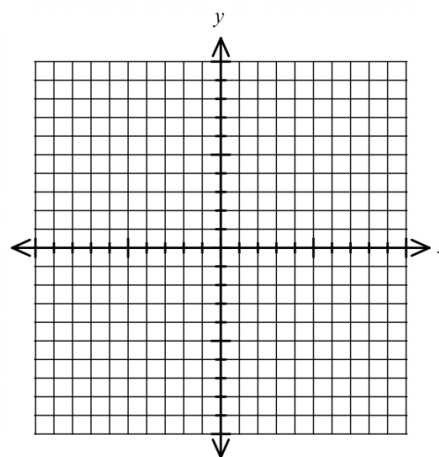
- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____



C. $f(x) = 4(x - 1)^2 - 24$

Xmin = -10, Xmax=10, Ymin = -25, Ymax = 5

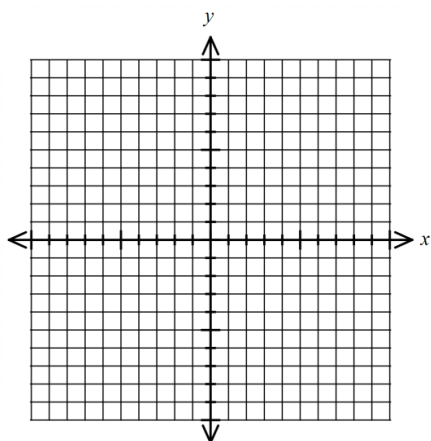
- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____



B. $f(x) = (x + 15)^2 - 9$

Xmin = -25, Xmax=5, Ymin = -10, Ymax = 10

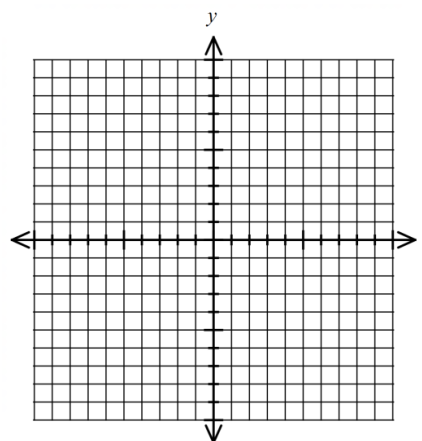
- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____



D. $y = -0.5x^2 + x - 1$

Xmin = -10, Xmax=10, Ymin = -10, Ymax = 10

- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____

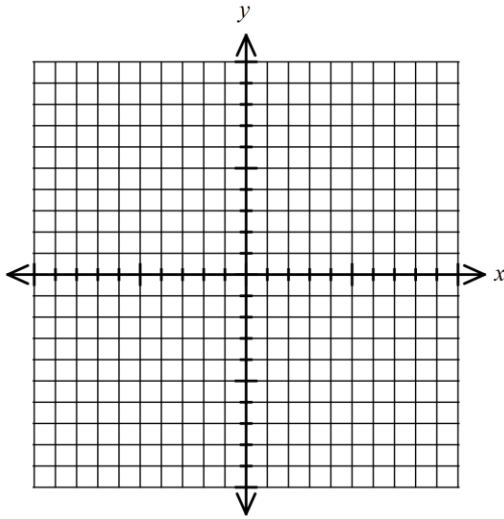


Now use the graphing calculator to sketch a graph on paper. You need at least 7 points on each graph, and please list them to the side. Adjust your scales to make it fit

1. $y = 3x^2 + 15x - 10$

Xmin = -10, Xmax = 10, Ymin = -30, Ymax = 10

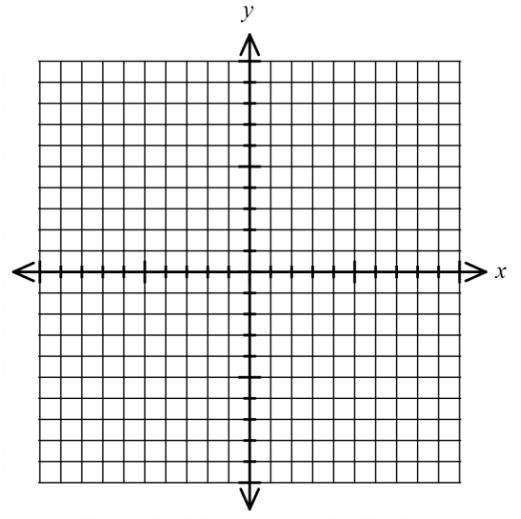
- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____



3. $f(x) = -15(x + \pi)^2 + 4\pi$

Xmin = -10, Xmax = 10, Ymin = -150, Ymax = 20

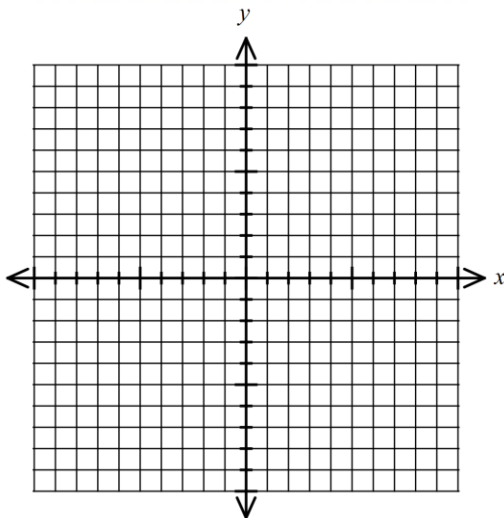
- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____



2. $y = 2x^2 - 700x + 90,000$

Xmin = -100, Xmax = 500, Ymin = 0, Ymax = 100,000

- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____



4. $y = -\frac{1}{2}(9.8)t^2 + 550t + 1.22$

Xmin = -1, Xmax = 150, Ymin = -100, Ymax = 16000

- a. Vertex _____
- b. x-intercept(s) _____
- c. y-intercept _____

