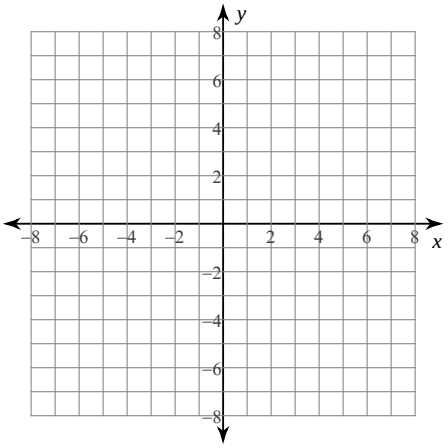
Students taking Pre-Cal, Stat, Adv. Topics, College Readiness Name_____

Assignment 7: Graphing Quadratic Functions

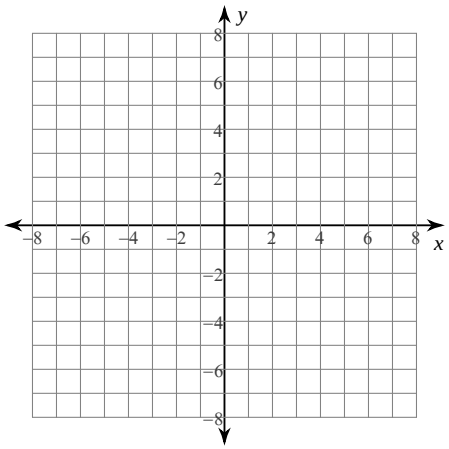
Date_____ Period____

Identify the vertex, axis of symmetry, direction of opening, and x-intercepts of each. Then sketch the graph.

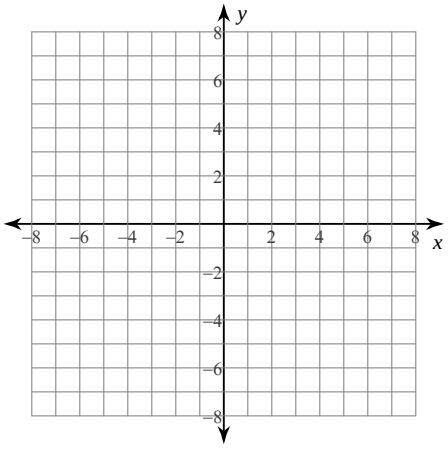
1) $f(x) = -x^2 - 9x - 20$



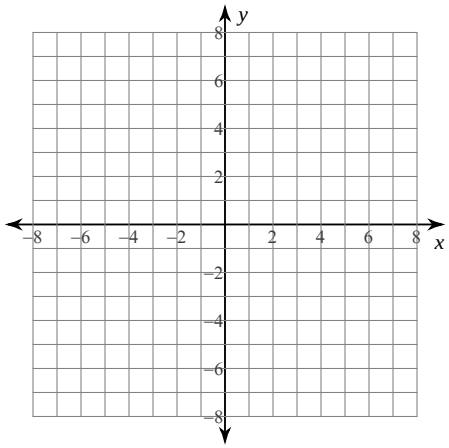
2) $f(x) = -\frac{1}{2}x^2 - \frac{5}{2}x - 3$



3) $f(x) = x^2 - 7x + 12$



4) $f(x) = \frac{1}{3}x^2 - \frac{5}{3}x - 2$



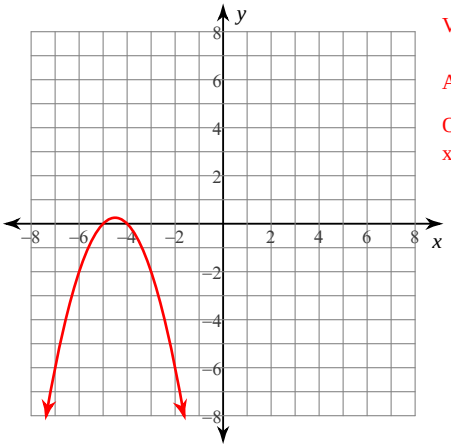
Students taking Pre-Cal, Stat, Adv. Topics, College Readiness Name_____

Assignment 7: Graphing Quadratic Functions

Date_____ Period____

Identify the vertex, axis of symmetry, direction of opening, and x-intercepts of each. Then sketch the graph.

1) $f(x) = -x^2 - 9x - 20$



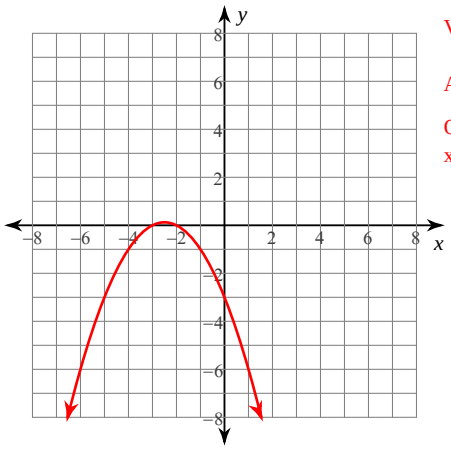
Vertex: $\left(-\frac{9}{2}, \frac{1}{4}\right)$

Axis of Sym.: $x = -\frac{9}{2}$

Opens: Down

x-int: –4 and –5

2) $f(x) = -\frac{1}{2}x^2 - \frac{5}{2}x - 3$



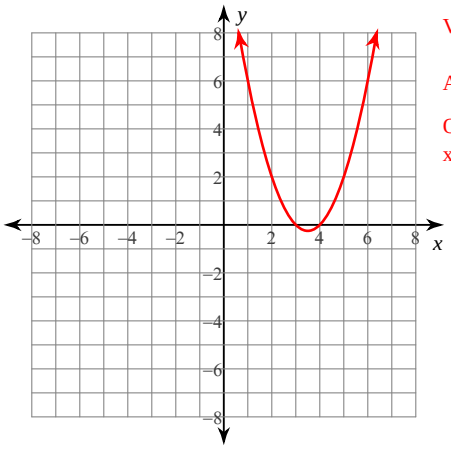
Vertex: $\left(-\frac{5}{2}, \frac{1}{8}\right)$

Axis of Sym.: $x = -\frac{5}{2}$

Opens: Down

x-int: –3 and –2

3) $f(x) = x^2 - 7x + 12$



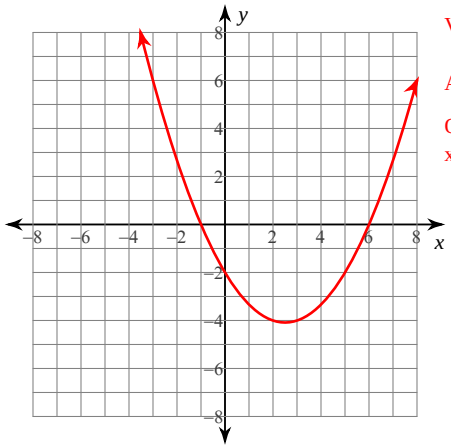
Vertex: $\left(\frac{7}{2}, -\frac{1}{4}\right)$

Axis of Sym.: $x = \frac{7}{2}$

Opens: Up

x-int: 3 and 4

4) $f(x) = \frac{1}{3}x^2 - \frac{5}{3}x - 2$



Vertex: $\left(\frac{5}{2}, -\frac{49}{12}\right)$

Axis of Sym.: $x = \frac{5}{2}$

Opens: Up

x-int: 6 and –1