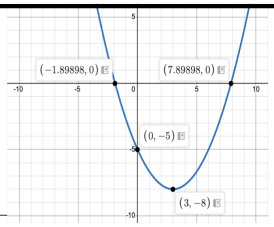
Algebra IIb
GC-1
Solutions

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



a: Vertex = (3,-8)

b: $f(x)$ opens: a) up b) down c) left d) right

c: $f(x)$ is: a) fat b) skinny c) normal

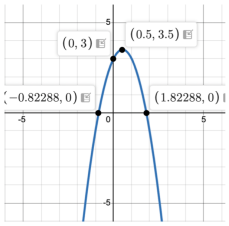
d: domain is $\mathbb{R}$ e: x-intercepts {-1.90, 7.90}

f: axis of symmetry x=3

g: the vertex is a a) maximum b) minimum c) neither

h: the range is [-8,∞) i: y-intercept (0,-5)

2) $y = -2x^2 + 2x + 3$



a: Vertex = (.05, 3.5)

b: $f(x)$ opens: a) up b) down c) left d) right

c: $f(x)$ is: a) fat b) skinny c) normal

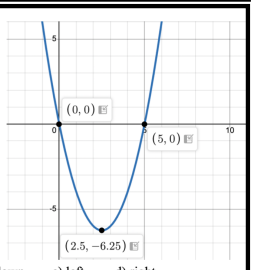
d: domain is $\mathbb{R}$ e: x-intercepts {-0.8, 1.8}

f: axis of symmetry $x = \frac{1}{2}$

g: the vertex is a a) maximum b) minimum c) neither

h: the range is (-∞, 3.5] i: y-intercept (0,3)

3) $y = x^2 - 5x$



a: Vertex = (2.5,-6.25)

b: $f(x)$ opens: a) up b) down c) left d) right

c: $f(x)$ is: a) fat b) skinny c) normal

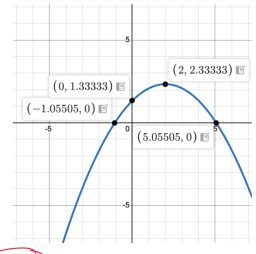
d: domain is $\mathbb{R}$ e: x-intercepts {0,5}

f: axis of symmetry x=2.5

g: the vertex is a a) maximum b) minimum c) neither

h: the range is [-6.25,∞) i: y-intercept (0,0)

4) $y = -\frac{1}{4}(x - 2)^2 + \frac{7}{3}$



a: Vertex = (2,2.33)

b: $f(x)$ opens: a) up b) down c) left d) right

c: $f(x)$ is: a) fat b) skinny c) normal

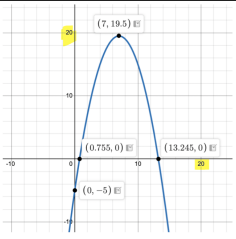
d: domain is $\mathbb{R}$ e: x-intercepts {-1.06, 5.06}

f: axis of symmetry x=2

g: the vertex is a a) maximum b) minimum c) neither

h: the range is (-∞, 2.33] i: y-intercept (0, 1.33)

5) $y = -\frac{1}{2}x^2 + 7x - 5$



a: Vertex = (7,19.5

b: $f(x)$ opens: a) up b) down c) left d) right

c: $f(x)$ is: a) fat b) skinny c) normal

d: domain is $\mathbb{R}$ e: x-intercepts {0.755, 13.245}

f: axis of symmetry x=7

g: the vertex is a a) maximum b) minimum c) neither

h: the range is (-∞, 19.5] i: y-intercept (0,-5)