**Acc 2 Final Review Pt 2 (answers)**

1. 3(x-3)(x-1)
2. On graph; vertex at (2,4) and downward
3. a. *i*

b. *-i*

c. 1

1. a. 1 + 11*i*

b. 1.3 + 8.1*xi*

c. 24x² + 6

1. $\frac{3}{2}$ + $\frac{\sqrt{3}}{2}$ *I* and $\frac{3}{2}$ - $\frac{\sqrt{3}}{2}$ *i*
2. $\frac{3}{2}$ (x + 1)² + 1
3. The other root is 7 – 5i
4. a. concave down

b. y=-3

c. x = 1

1. a. concave up

b. x = 5 and x = -2

c. x = 3/2

1. a. concave up

b. (-3,-2)

c. x = -3

1. a. Not possible. Negative “a” value, concave down. However, positive x-intercepts.

b. concave down, both of its x-intercepts negative.

1. a. Not possible. Positive “a” value means concave up, but it has positive x intercepts.

b. concave up, vertex (-5,1)

1. Concave up, vertex (-2,3), y-int (0,-8), x-int (-1,0) and (-3,0)
2. a. 18x³ + 12x² - 15x -10

b. 45x³ - 6x² -29x +4

1. h(-x) = -3x³ + 2x² + 5

-h(x) = -3x³ - 2x² - 5

1. zeros at -2.5, 0, and 1.5 cubic function, arrow on left to neg infinity and arrow on right pos infinity
2. a. V(x) = x(12-2x)(8-2x)

b. greatest possible is when x = 3.

c. The volume is max at x = 2. 2 x 4 x8 = 64 cubic in.

1. a. f(x) = -3(x-1)² + 3

b. f(x) = 2(x + 3)² - 3

1. As x approaches infinity, r(x) approaches neg infinity. As x approaches neg infinity, r(x) approaches infinity.
2. New reference points (-3,0), (-2,1), (-1,8)