

Name: \_\_\_\_\_

This quiz covers: 1.8, 2.1 and 2.2.

**Directions:** Complete all questions and **show all applicable work.** Partial credit will be given. All questions are equally weighted.

1.) Find the inverse of the following function. Also state the domain and range of the inverse:

$$f(x) = \sqrt{x+1}$$

2.) Simplify:

$$(3i - 2)(6i + 4)$$

Name: \_\_\_\_\_

**3.)** Put the following quadratic function in standard form ( $y = a(x - h)^2 + k$ ), then graph it clearly stating how you found the vertex, concavity (ie. open up or down), y-intercept and x-intercepts.

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