**Chapter 4 Quadratic Functions and Equations Test**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Block: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Factor the following. [L2]

1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
  
 2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graph (Use at least 5 points). [L2] Graph (Use at least 5 points). [L2]



Factor the expression completely. [L2]

5.) 2x2 + 16x + 30 5.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplify the following. [L2]

7.) 7.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8.) 81 8.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9.) (7 + 2i) + (10 – 5i) 9.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10.) (-9 – 7i) – (3 + 8i) 10.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11.) (3 + 5i)(2 – 4i) 11.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Solve the Equations Using Any Method (Factoring, Graphing, or Quadratic Formula). State which method. [L3]

12.) 12.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13.) 13.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14.) 14.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15.) 15.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16.) 16.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Solve the following. [L4]  
17.) Your local bakery sells more bagels when it reduces price, but then its profit changes. The function 13.) models the bakery’s daily profit in dollars, from selling bagels, where x is the price of a bagel in dollars. What’s the highest price the bakery can charge, in dollars, and make a profit of at least $250?

17.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Solve the following. [L4]