Math 2/2H   Name_____
SLO Review Solving Quadratics   Date_____ Period_____

Calculator Allowed

1) Find the product: $(7 - 3i)^2$

2) Expand: $(7 + 6i)(3 + 7i)$

Solve.

3) $10p^2 + 2 = 1002$

Find the zeros.

4) $f(x) = x^2 - 9x + 14$

5) $f(x) = x^2 - x - 30 = 0$

6) $3n^2 + 4n - 15 = 0$

7) $4n^2 - n = 0$

Solve. If your answer is imaginary you will need to do the quadratic formula.

8) $3b^2 - 2b + 9 = 0$

9) Use the discriminat , $b^2 - 4ac$, of a quadratic equation to determine how many and what type of solutions each part below will have.

   a) discriminant= -3

   b) discriminant=25

   c) disriminant =0

Solve each system.

10) $y = -7x - 3$
    $y = -x + 3$

11) $y = 5x^2 - 4$
    $y = -5x$

12) $x^2 + 2x - 35 > 0$

13) $x^2 + 7x + 6 < 0$

14) A coin is dropped off a ledge. There is a fountain directly below the ledge. If the ledge is 38 feet above the ground and the fountain is 2 feet above the ground, how long will it take for the coin to land in the fountain?
    Use h(t)=$-16t^2 + vt + h$ to help you.

15) A skydiver jumps out of an airplane. There is a building directly below the plane. If the plane is 500 feet above the ground and the roof is 85 feet above the ground, how long will it take for the skydiver to land on the building?
    Use h(t)=$-16t^2 + vt + h$ to help you.