Name: _____ Date: _____ **Unit 5 Class Work**

Solving Quadratic Functions with Complex Solutions Class Work

Objective: *You will be able to solve and check your solutions to quadratic functions.*

Recall: What are some ways you have solved quadratic equations so far?

Hypothesize: How do you think your new knowledge of complex numbers will help you in solving quadratic equations?

Practice: Solve and check your solution to each quadratic equation.

1. $-3x^2 = 21$

2. $n^2 = -20$

3. $m^2 + 36 = 0$

4. $8r^2 = -48$

5. $(2x + 4i)(2x - 4i) = 20$

6. $(h - 8i)(h + 8i) = 12$

7. $2w^2 + 90 = 0$

8. $120 + 3x^2 = 0$

9. $-125 = 5m^2$

10. $8z^2 + 96 = 0$

11. $(4p - 5i)(4p + 5i) = 9$

12. $(3d - 8i)(3d + 8i) = 100$

13. $x^2 = -420$

14. $\frac{1}{2}x^2 = -25$

Reflect: How have you grown in regards to solving quadratic equations? What obstacles, if any, have you overcome? What questions do you still have?

Homework: p. 274# 3, 7 13, 35, 39, 41-46, 50 – 52, and 56

*Check solutions to odd numbered problems with the back of the book! ☺