Algebra II Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplifying Radicals and Complex #’s Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hour\_\_\_\_\_\_\_\_\_\_

Homework #6

Simplify each number by using the imaginary number i.

1. 2) 3) 4) 5 5) 3

Write each number in the form a + bi.

6) 2 + 7) +8 8) 6 - 9) + 3

10) 11) 12)

Find the additive inverse of each number.

14) 4i 15) 5 – 3i 16) 9 + i 17) -4 + 7i

Simplify each expression.

18) (2 + 4i) + (4 – i) 19) (-3 – 5i) + (4 – 2i) 20) 6 – (8 + 3i)

21) (12 + 5i) – (2 – i) 22) (-6 – 7i) – (1 + 3i) 23) (-2i)(5i)

Simplify each expression.

24) (-6 – 5i)(1 + 3i) 25) (4 – 3i)(5 + 2i) 26) (8 + i)(2 + 7i)

Review Lesson 5-5

Solve by factoring

27) x2 – 18x – 40 = 0 28) x2 – 6x = 7 29) 2x2 + 5x = 0

Solve by factoring or square rooting.

30) x2 – 49 = 0 31) 16x2 = 81 32) 2x2 – 15 = 59 (Simplify radical answer)

33) x2 + 25 = 0 34) x2 + 36 = 0