HW 7 – Complex Numbers Continued Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Find the conjugate of each expression:*

1. $7+i$ 2. $5-6i$ 3. $-3-2i$ 4. $-1+i$

*Simplify each expression:*

5. $5i∙4i$ 6. $3i(5+2i)$ 7. $(3i)∙(-7i)$

8. $6(-10i-3)$ 9. $i(7-i)$ 10. $\sqrt{-16}(1-i)$

11. $(-1+2i)(-4-4i)$ 12. $(3-2i)(3+2i)$

13. $(-2+5i)(3-3i)$ 14. $(-5+3i)^{2}$

15. $\frac{-5}{6i}$ 16. $\frac{7}{-3i}$ 17. $\frac{-5+7i}{5i}$

18. $\frac{-5}{2-i}$ 19. $\frac{7}{-1+6i}$

20. $\frac{-1-2i}{3+4i}$ 21. $\frac{6+2i}{6-2i}$

22. $i^{80}$ 23. $i^{229}$ 24. $i^{51}$ 25. $i^{70}$