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

LT 8-2: Complex Numbers Day 2 Period\_\_\_\_

**Simplify. Write your answer in standard** $a+bi$ **form.**

1) $\left(2+3i\right)+\left(-2-6i\right)-(3-5i)$ 2) $3i-\left(-2+2i\right)+(7-i)$

3) $-i+\left(3-4i\right)-(-2-6i)$ 4) $3i(2+6i)$

5) $(3-2i)(5-3i)$ 6) $(-2+6i)(1-5i)$

7) $4i(2-i)∙5i^{3}(-1+2i)$ 8) $3i(-3-2i)(4-3i)$

9) $\left(2-4i\right)^{2}$ 10) $\left(1+i\right)^{3}$

11) $\frac{8}{3i}$ 12) $\frac{9+4i}{6i}$

13) $\frac{-4i}{3+4i}$ 14) $\frac{5-4i}{1+5i}$

15) $\frac{-9-6i}{-1+3i}$ 16) $\frac{-2+10i}{-5+5i}$