Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ HW #4

**Complex Numbers and Solve using square root property part 2 practice**

1. What is the value of $i$?
2. What is the value of $i^{2}$, $i^{3} , i^{4}$ ?
3. What is the product of $(2+4i)(6-3i)$?
4. Find the difference of $\left(-10+i\right)-(-6-5i)$.

1. Write the conjugate of each of the following complex numbers.
	1. $-4-2i$
	2. $3+i$
	3. $-2+7i$
	4. $6i$
2. Simplify the expression $\frac{10-2i}{7-i} $.
3. Write each of the following expressions in standard form.
4. $-2-\sqrt{-81}$
5. $3-\sqrt{-100}$
6. $-\sqrt{9}-\sqrt{-36}$
7. What is the sum of $\left(8+7i\right)+(-9-12i)$?
8. Find the product of $-2i(-6+8i)$.
9. Simplify the expression $\frac{3+4i}{2-5i}$.
10. Simplify each of the following expressions.
11. $\sqrt{-90}$
12. $\sqrt{-200}$

12. Simplify the expression$-16-\left(3+2i\right)+8i$.

Solve:

13.  14.  15.  16. 