**Secondary Math 2 6.1 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**Adding, Subtracting, and Multiplying Polynomials**

1. **Simplify and put your answer in standard form**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$\left(x^{2}-3x+7\right)+\left(5x^{2}+3x+10\right)$$ | b) | $$\left(-9x^{2}+4x+1\right)-\left(2x+3x^{2}-1\right)$$ |

1. **Simplify and put your answer in standard form**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$\left(2x-5\right)\left(7x+8\right)$$ | b) | $$3\left(x+1\right)^{2}$$ |

**Review Problems**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Simplify:$$4mm^{3/2}$$ |  | Simplify:$$\frac{8x^{3}}{2x^{1/3 }}$$ |
|  | Simplify and put in standard form:$$\left(8+i\right)\left(2+7i\right)$$ |  | Solve for x using the Pythagorean Theorem: |

**Extended Understanding:** Simplify, put the expression in standard form, and **state the degree.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\left(3x-1\right)\left(x+2\right)-\left(4x^{2}+3\right)$$ |  | $$\left(3x-1\right)-\left(x+2\right)\left(4x^{2}+3\right)$$ |

Problems 7) and 8) have the same terms being operated on but with a minor adjustment in how the terms are grouped. Write a sentence that explains why the results for those two problems are not the same.