**Secondary Math 2 5.4 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**Complex Numbers**

1. **Simplify each complex number. Remember to leave your answers in standard form.**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$\sqrt{-81}$$ | b) | $$\sqrt{-8}+8$$ |

1. **Simplify each complex number. Remember to leave your answers in standard form.**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$\left(2+4i\right)+\left(4-i\right)$$ | b) | $$\left(12+5i\right)-\left(2-i\right)$$ |

1. **Simplify each complex number. Remember to leave your answers in standard form.**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$\left(-6-5i\right)\left(1+3i\right)$$ | b) | $$\left(9+4i\right)^{2}$$ |

1. **Simplify each complex number. Remember to leave your answers in standard form.**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$\left(-6i\right)^{2}$$ | b) | $$\sqrt{-6}∙\sqrt{-2}$$ |

**Review Problems:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Solve for c:$$\left(c-1\right)^{1/3}=2$$ |  | Simplify:$$\left(216x^{3}\right)^{5/3}$$ |
|  | Simplify:$$\left(a^{2/3}b^{5/4}\right)^{1/6}$$ |  | Simplify:$$\left(\frac{a^{3}}{b^{1/2}}\right)^{3/4}$$ |