**Secondary Math 2 5.2 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_**

**Rational Exponents**

1. **Simplify each expression. Make sure all answers have no negative exponents.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| a) | $$2a^{3/4 }⋅a^{2/3}$$ | b) | $$\frac{2x^{-3/2}}{x^{-1/2}}$$ | c) | $$\left(r^{0}\right)^{2/3}$$ |

1. **Simplify each expression. Make sure all answers have no negative exponents.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| a) | $$x^{0}⋅2x^{2/3}⋅3x^{-2}$$ | b) | $$\left(\frac{3c^{-1/3}}{d^{2/3}}\right)^{3}$$ | c) | $$\left(m^{3}n^{-2/5}p\right)^{6}$$ |

**Review Problems:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Determine if the two triangles are similar. If so, write a similarity statement. |  | Solve for x and y: |
|  | Solve for x and y: |  | Find $\hat{BC}$and $\hat{CA}$. |

**Simplify each expression. Make sure all answers have no negative exponents.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\frac{a^{0}b^{0}⋅\left(b^{-2/3}\right)^{1/3}}{a^{-1}b^{1/3}}$$ |  | $$\left(\frac{a^{3}b^{0}}{a^{1/4}b^{1/3}⋅a^{-2}b^{3}}\right)^{-1/2}$$ |