Review

1. $x+x$ Remember…ADDING changes the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. $ x∙x$ Remember…MULTIPLYING changes the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Multiplying a Polynomial by a Monomial

|  |  |  |
| --- | --- | --- |
| Example #1$$6y(4y^{2}-9y-7)$$ | Practice 1A$$3x(2x^{2}+3x+5)$$ | Practice 1B$$5a^{2}(-4a^{2}+2a-7)$$ |

Multiplying a Polynomial by a Monomial…More than once! ☺

|  |  |  |
| --- | --- | --- |
| Example #2$$3\left(2t^{2}-4t-15\right)+6t(5t+2)$$ | Practice 2A$$5 \left(4y^{2}+5y-2\right)+2y(4y+3)$$ | Practice 2B$$3\left(5x^{2}+2x-4\right)-x(7x^{2}+2x-3)$$ |

Multiplying a Polynomial and Solving

|  |  |  |
| --- | --- | --- |
| Example #3$$b\left(12+b\right)-7=2b+b(-4+b)$$ | Practice 3A$$\left(2x^{2}+2\right)+2x\left(x-3\right)=4x\left(x-5\right)-12$$ | Practice 3B$$d\left(d+3\right)-d\left(d-4\right)=9d-16$$ |

HOMEWORK

Find each product.

1. $2h(-7h^{2}-4h)$ 2) $-\frac{2}{3}n^{2}(-9n^{2}+3n+6)$

Simplify each of the following.

3) $ -2l\left(3l-4\right)+7l$ 4) $5w\left(-7w+3\right)+2w(-2w^{2}+19w+2)$

Solve each equation.

5) $ 5\left(2t-1\right)+3=3(3t+2)$ 6) $ 8\left(3b+1\right)=4\left(b+3\right)-9$