Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lesson #54 - Simplify Expressions ~ Inverses

Do Now:

1. What operation do you use when performing the distributive property?
2. What do you do anytime you see subtraction in a problem?
3. What rules do you follow for combining like terms?

Directions: Write the sum and then write an equivalent expression by using the distributive property and/or combining like terms.

|  |  |
| --- | --- |
| 1. $2x $and $-2x+3$
 | 1. $2x-7$ and the opposite of $2x $
 |
| 1. The additive inverse of $(5x-1)$ and $5x$
 | 1. $-4$ and $4b+4$
 |

Directions: Write the product and then write the expression by using the distributive property and/or

combining like terms.

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| 1. $\left(2x-\frac{1}{5}\right)$ and the multiplicative inverse of $\frac{1}{5}$
 | 1. The multiplicative inverse of $2$ and $(2x+4)$
 |
| 1. The multiplicative inverse of $\left(\frac{1}{3x+5}\right)$ and$ \frac{1}{3}$
 | 1. The reciprocal of $3$ and $-6y-3x$
 |

Directions: Simplify the following expressions using the distributive property and combining like terms.

|  |  |
| --- | --- |
| 1. $-6\frac{1}{3}-\frac{1}{2}\left(\frac{1}{2}+y\right)$
 | 1. $6+\frac{1}{3}\left(\frac{1}{4}f-9\right)$
 |
|  1. $\frac{1}{2}k-5k$
 | 1. $ -\frac{1}{3}a-\frac{1}{2}b-\frac{3}{4}+\frac{1}{2}b-\frac{2}{3}b+\frac{5}{6}a$
 |
| 1. (4x – 9) + ( 2x – 11)
 | 1. (-2x + 6) – (6x + 8)
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