Distributive Property

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|  Problem of the dayYou can buy used in-line skates from your friend for $40, or you can rent some. Either way, you must rent safety equipment. How many hours must you skate for the cost of renting and buying skates to be the same?  Plan Solve Check  |
| Essential Question | What does it mean? |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How do you use the distributive property to simplify an expression? |  |

 New Concept

 **Distributive Property**- *multiply* across the parentheses

 Let's consider the problem **3(x + 6)**



 **=**

* Distribute 3(*a*+2) -3(*a*+2)

***Let’s try together ☺***

1) 4(x - 2) 2) 2(2 + x)

Use the same strategy if the number appears after the parentheses

 (x+2)5 is the same as 5(x+2)

 -(x+2) is the same as -1(x+2)

 7 - (x+2) is the same as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 7 + (x+2) is the same as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Using the Distributive Property |
| Lesson #6 Introduction | Work Period |

***Directions: Practice writing each problem in simplest form.
Use all 3 methods for each question: area model, distributive (mailman), and the vertical method.***

1. -5(2 + *x*)
2. *x*(5 + 2)
3. *x*(*y* – 25)
4. 7(*x* – 10)
5. -2(*x* + *y*)
6. -2(*x* - 3)
7. -(5-2*x*)
8. 3(5*x* + 2*x*)
9. 0(*x* + 2)
10. 8(0 + 7)
11. (-12 + *x*)(-5)
12. 5x - (2 - x)
13. 2(*x*+4) + 3(9+*x*)
14. -5(3 + *x*) – 9(*x*+2)

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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Using Distributive Property |

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| Lesson #6 Introduction | Homework |

***Directions: Simplify***

1. 3(*n* + 3)
2. 4 (- 8 + *b*)
3. -2(*x* - 3)
4. (3*c* + 7)3
5. -(*u* + 30)
6. -3 (-12 - *p*
7. 2(-*x* + 3)
8. (12*f* - 18)(-10)