

Name \_\_\_\_\_

Date \_\_\_\_\_

Directions:

This activity will show how well you know the distributive property. Look at the following four examples and decide whether or not the expressions are equivalent. If the expressions are equivalent, explain how you know. If the expressions are not equivalent, explain your reasoning.

$$-5(3x + 4) + 2 = -15x + 6$$

$$3(x - 4) - 5(x - 4) = -2x + 8$$

$$-7\left(\frac{2}{3}x + 9\right) - 8 = 4\frac{2}{3}x - 71$$

$$6(1.5x - 2) + 2 = 9x + 30$$

U4 L1-5

### Equivalent or Not Equivalent

7.EE.1

Now create your own expressions. Three should be equivalent and three should not be equivalent. Make sure to include the distributive property in your expressions and least one of the expressions must have rational numbers. These will be used in your next activity.


Name \_\_\_\_\_

Date \_\_\_\_\_

Sort the expressions into equivalent and not equivalent and place them in the appropriate column.. Be sure to include your reasoning.

<b>Equivalent</b>	<b>Not Equivalent</b>

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This activity will show how well you know the distributive property. Look at the following four examples and decide whether or not the expressions are equivalent. If the expressions are equivalent, explain how you know. If the expressions are not equivalent, explain your reasoning.

**ANSWERS**

$-5(3x + 4) + 2 = -15x + 6$ <p style="text-align: center;"><b>NOT EQUIVALENT</b></p> $-15x - 18 = -15x + 6$ <p style="text-align: center;">Justification may vary.</p>	$3(x - 4) - 5(x - 4) = -2x + 8$ <p style="text-align: center;"><b>EQUIVALENT</b></p> $-2x + 8 = -2x + 8$ <p style="text-align: center;">Justification will vary.</p>
$-7\left(\frac{2}{3}x + 9\right) - 8 = 4\frac{2}{3}x - 71$ <p style="text-align: center;"><b>NOT EQUIVALENT</b></p> $-4\frac{2}{3}x - 71 = 4\frac{2}{3}x - 71$ <p style="text-align: center;">Justification will vary.</p>	$6(1.5x - 2) + 2 = 9x + 30$ <p style="text-align: center;"><b>NOT EQUIVALENT</b></p> $9x - 10 = 9x + 30$ <p style="text-align: center;">Justification will vary.</p>

ANSWERS WILL VARY FOR THE SECOND PART OF THE ACTIVITY.