

## Modifying Assessments- Algebra I

Directions: Modify this low cognitive demand problem to a higher cognitive demand problem. Show the new problem on the right and explain your strategy or strategies you used to modify the problem on the left.

<b>LOW cognitive demand problem</b>	<b>HIGH cognitive demand problem</b>				
<p>2. Select all of the following expressions that correctly illustrate the Associative Property of Addition?</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tbody> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> <p>a) <math>2x + 8 - 5x = 9</math> <math>2x - 5x + 8 = 9</math></p> </td> <td style="width: 50%; padding: 5px; vertical-align: top;"> <p>b) <math>(8 + 2x) - 5x = 9</math> <math>8 + (2x - 5x) = 9</math></p> </td> </tr> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> <p>c) <math>8x + (2x - 5x) = 9</math> <math>(8x + 2x) - 5x = 9</math></p> </td> <td style="width: 50%; padding: 5px; vertical-align: top;"> <p>d) <math>(8 + 2x) - 5x = 9</math> <math>(2x + 8) - 5x = 9</math></p> </td> </tr> </tbody> </table>	<p>a) <math>2x + 8 - 5x = 9</math> <math>2x - 5x + 8 = 9</math></p>	<p>b) <math>(8 + 2x) - 5x = 9</math> <math>8 + (2x - 5x) = 9</math></p>	<p>c) <math>8x + (2x - 5x) = 9</math> <math>(8x + 2x) - 5x = 9</math></p>	<p>d) <math>(8 + 2x) - 5x = 9</math> <math>(2x + 8) - 5x = 9</math></p>	This area is left blank for the student to write their modified problem and explanation
<p>a) <math>2x + 8 - 5x = 9</math> <math>2x - 5x + 8 = 9</math></p>	<p>b) <math>(8 + 2x) - 5x = 9</math> <math>8 + (2x - 5x) = 9</math></p>				
<p>c) <math>8x + (2x - 5x) = 9</math> <math>(8x + 2x) - 5x = 9</math></p>	<p>d) <math>(8 + 2x) - 5x = 9</math> <math>(2x + 8) - 5x = 9</math></p>				

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<p>3. Solve the following equation for m: <math>y = mx + b</math>.</p> <p>_____</p>	

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<p>4. What is the solution to <math>3x + 5 - 7 = 2x + 8</math> ?</p> <ul style="list-style-type: none"><li>a) <math>x = -2</math></li><li>b) <math>x = 2</math></li><li>c) <math>x = 6</math></li><li>d) <math>x = 10</math></li></ul>	

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<p>7. Identify the property that justifies the work between step 6 and step 7.</p> <p>Step 1: <math>8(x - 1) = -4 + 2(3x + 1)</math> Step 2: <math>8x - 8 = -4 + 6x + 2</math> Step 3: <math>8x - 8 = -4 + 2 + 6x</math> Step 4: <math>8x - 8 = -2 + 6x</math> Step 5: <math>8x - 8 - 6x = -2 + 6x - 6x</math> Step 6: <math>2x - 8 = -2</math> Step 7: <math>2x - 8 + 8 = -2 + 8</math> Step 8: <math>2x = 6</math> Step 9: <math>(2x)/2 = 6/2</math> Step 10: <math>x = 3</math></p> <div data-bbox="298 945 863 1432" style="border: 2px solid blue; padding: 5px;"><p>Distributive Property</p><p>Commutative Property of Addition</p><p>Associative Property of Addition</p><p>Identity Property of Addition</p><p>Addition Property of Equality</p><p>Inverse Property of Addition</p></div>	