

Take Home Quiz #5
SHOW ALL ORGANIZED WORK

DUE:

<p>1) Solve for b: $A = \frac{1}{2}bh$</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">3</p>	<p>2) Solve for x: $x - 2 + 3x = 6 + 5x$</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">4</p>
<p>3) Which number does not have a multiplicative inverse?</p> <p>a) -2 c) 0.15 b) 0 d) $\frac{1}{50}$</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">2</p>	<p>4) Which equation is an illustration of the additive identity property?</p> <p>a) $x \cdot 1 = x$ c) $x - x = 0$ b) $x + 0 = x$ d) $x \cdot \frac{1}{x} = 1$</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">2</p>
<p>5) Solve & then analyze the solutions to: $5x + 10 = 3(x + 4) + 2x$</p> <p>a) $x = 5$ b) There are no solutions c) $x = 2$ d) There are an infinite number of solutions</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">3</p>	<p>6) Given the following algebraic expression, fill in the blanks with the appropriate property that was used to simplify the expression.</p> <p>$7(x+2) - 7(x-3)$</p> <p>$7x + 14 - 7x + 21$ _____</p> <p>$7x - 7x + 14 + 21$ _____</p> <p>$0 + 14 + 21$ _____</p> <p>35</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">3</p>
<p>7) Which of the following systems is NOT commutative?</p> <p>a) Addition for whole numbers b) Multiplication of integers c) Subtraction of whole numbers d) Addition for integers</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">2</p>	<p>8) Which is the smallest integer that makes the inequality $2x + 3 > 5$ true? Show work!</p> <p>a) -4 b) 2 c) 1 d) 5</p> <p style="text-align: right; border: 1px solid black; padding: 2px;">2</p>

9) Which equation is equivalent to $2a + 5b = 7$? Show work!

a) $b = 7 - 2a$

b) $b = 2a - 7$

c) $b = \frac{2a-7}{5}$

d) $b = \frac{7-2a}{5}$

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10) Solve the following compound inequality for x .

Write the solution in interval notation.

*you can also graph it to help with ↑

$x - 1 > 3$ or $x - 6 < -7$

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11) Use LESC to solve the following:

The length of a rectangle is 1 inch less than three times the width. If the length and width are both increased by 3 inches, the perimeter of the new rectangle is 50 inches. What is the perimeter of the original rectangle?

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12) Use LESC to solve the following:

Lauren is now 3 times as old as Zoe. In 4 years, Lauren will be twice as old as Zoe will be then. Find their present ages.

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