

Name: \_\_\_\_\_

**Homework (WEEK 8) S+**

**TRY YOUR BEST AND SHOW ALL OF YOUR WORK! Use CUBES (circle, underline, box, evaluate, and solve) to earn full credit.**

**TUESDAY:**

**Directions:** Solve the following problems. You MUST show your work. **NO WORK = NO CREDIT.**

<p>1. Simplify the following expressions: <math>5y + 2(4 + 3y) - y + 3^2</math></p> <p>Answer _____</p> <p>2. <math>9xy - 2x + y + x - xy + 4x</math></p> <p>Answer _____</p>	<p>4. Evaluate the following if <math>g = 6</math>, <math>m = 2</math>, and <math>d = 8</math>.</p> <p>a. <math>gm^3 + 2d</math> = _____</p> <p>b. <math>\frac{md + 4(g + 4)}{m^3}</math> = _____</p> <p>c. <math>12d - gm</math> = _____</p>
<p>3. Which property was used to simplify this expression? <math>3y + 42x + 7y - 5x</math> <math>3y + 7y + 42x - 5x</math> <math>10y + 37x</math></p> <p>Answer: _____</p>	<p>5. Write the expression described by the phrase. (use a variable for "number")</p> <p>a. Seven minus a number _____</p> <p>b. Six more than a number _____</p> <p>c. Twice a number increased by four _____</p> <p>d. Eight less than a number _____</p>

**WEDNESDAY:**

**Directions:** Solve the following problems. You MUST show your work. **NO WORK = NO CREDIT.**

<p>1. Use the distributive property to produce an equivalent expression for:</p> $4(x^2 + xy) + 3(x + x^2) - x - 5x^2$ <p>Answer _____</p> <p>2. <math>11m + 6(m + mn) - 2mn + 3(n + 4)</math></p> <p>Answer _____</p>	<p>4. The expression <math>24c + 18</math> can represent the area of the figure below. Using the distributive property find the width and then use the distributive property to find the length.</p> <table border="1" data-bbox="938 1396 1385 1556"><tr><td style="text-align: center;"><math>24c</math></td><td style="text-align: center;"><math>18</math></td></tr></table> <p>Answer _____</p>	$24c$	$18$
$24c$	$18$		
<p>3. Evaluate the expression <math>3x + 2y</math> when <math>x = 6</math> and <math>y = 2.5</math></p> <p>Answer _____</p>	<p>5. Evaluate the following when <math>x = 3</math> and <math>y = 2</math>.</p> $\frac{(x^3 - y^4) + y(x^0 \cdot 12)}{5^2 + x \cdot 3 + 1}$ <p>Answer _____</p>		

**THURSDAY:**

**Directions:** Solve the following problems. You **MUST** show your work. **NO WORK = NO CREDIT:**

<p>1. Use the distributive property to produce an equivalent expression for:</p> $7a(2a + 3) + 5(a^2 - 2a)$ <p>Answer: _____</p>	<p>3. Write an algebraic expression that represents 12 less than the product of 8 times a number squared.</p> <p>Answer _____</p> <p>4. Evaluate <math>(\frac{2}{3})^3 =</math> _____</p>
<p>2. <math>7a + 2</math> (You can NOT say 7a plus 2. Think of another way to translate this expression)</p> <p>Answer: _____</p>	<p>5. Combine like terms to simplify the following:</p> $10(w + 4a) - 12 + 3(w - 8)$ <p>Answer _____</p>

**MONDAY/WEDNESDAY:**

Solve the following problems **without a calculator**. You **MUST** show your work. **NO WORK = NO CREDIT.**

<p>1. Simplify the following expression:</p> $20w - 4x + 3w - 8 + 42x \div 7$ <p>Answer _____</p> <p>2. Use the distributive property to produce an equivalent expression for</p> $21x \div 3 + 6(3 - x) + 7^0$ <p>Answer _____</p>	<p>5. Simplify the following expressions.</p> $12r + 6(4r - 3) + 5^2 - 9r^2$ <p>Answer _____</p> <p>6. <math>6(4x - 2) - 9x + 4^2</math></p> <p>Answer _____</p>
<p>3. Evaluate:</p> $6xy \text{ when } x = 3.7 \text{ and } y = 11$ <p>Answer _____</p> <p>4. <math>\frac{x^2 - 2y + 3(z-1)}{y}</math> when <math>x = 6</math>, <math>y = 12</math> and <math>z = 5</math></p> <p>Answer _____</p>	<p>7. Write the following algebraic expressions in word form.</p> $8(2z - 4)$ <p>_____</p> <p>8. <math>5y + 4</math> (You can NOT say 5y plus 4. Think of another way to translate this expression)</p> <p>_____</p>