Name Date

**Topic 2 Quiz**

**Solve the following questions.**

1. In the drawing below, what do the letters $l$ and $w$ represent?
2. What does the expression $l∙w$ ***represent***?
3. The rectangle below is congruent (same shape & size) to the rectangle shown in Problem 1. Use this information to evaluate the expression from Problem 2.



1. Using the formula $V=l×w×h$, find the volume of a right rectangular prism when the length of the prism is $36 cm$, the width is $12 cm$, and the height is $8 cm$.

Draw a model to support your answer.

1. What is the difference between $6z$ and $z$6?
2. Write $10^{3}$ as a multiplication expression having repeated factors.
3. Write$ 8×8×8×8 $using exponents
4. Evaluate this expression: $39÷\left(2+1\right)-2×\left(4+1\right).$
5. Evaluate this expression: $12×\left(3+2^{2}\right)÷2-10.$
6. Evaluate this expression: $12×(3+2)^{2}÷2-10.$

Answer Key

1. In the drawing below, what do the letters $l$ and $w$ represent?



* + 1. Length and width of the rectangle
1. What does the expression $l+w+l+w$ represent?
	* 1. Perimeter of the rectangle, or the sum of the sides of the rectangle
2. What does the expression $l∙w$ represent?
	* 1. Area of the rectangle
3. The rectangle below is congruent to the rectangle shown in Problem 1. Use this information to evaluate the expressions from Problems 2 and 3.
	* 1. 
		2. $l=5 $and$ w=2$ $P=14 units$ $A=10 units^{2}$
4. What is the difference between $6z$ and $z^{6}$?
	* 1. $6z =z+z+z+z+z+z$ or $6$ times $z$ ; $z^{6}=z×z×z×z×z×z$
5. Write $10^{3}$ as a series of products.
	* 1. $10×10×10$
6. Write $8×8×8×8$ using an exponent.
	* 1. $8^{4}$
7. Evaluate this expression: $39÷\left(2+1\right)-2×\left(4+1\right).$
	* 1. $39÷3-2×5$
		2. $13-10$
		3. $3$
8. Evaluate this expression: $12×\left(3+2^{2}\right)÷2-10.$
	* 1. $12×\left(3+4\right)÷2-10$
		2. $12×7÷2-10$
		3. $84÷2-10$
		4. $42-10$
		5. $32$
9. Evaluate this expression: $12×(3+2)^{2}÷2-10.$
	* 1. $12×5^{2}÷2-10$
		2. $12×25÷2-10$
		3. $300÷2-10$
		4. $150-10$
		5. $140$