Name _____ Date _____

Practice Worksheet
Content Standard: Language of Algebra
Student Learning Expectations: The concept of variable as used in algebraic modeling

1. Tamara traveled 300 miles. Which expression describes her rate if she made the trip in *h* hours?
   a. $300 + h$
   b. $300 - h$
   c. $300(h)$
   d. $300/h$

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2. The relationship between Fahrenheit temperature (F) and Celsius temperature (C) is given by the equation $F = 9/5\ C + 32$. If the temperature is 30º C, what is the corresponding Fahrenheit temperature?

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3. Roland walks at a steady rate of 3.5 miles per hour. This distance traveled depends on the amount of time, *t*, that Roland walks. Which expression represents the distance walked?
   a. $t + 3.5$
   b. $t/3.5$
   c. $3.5/t$
   d. $3.5t$

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4. In the equation $5x + 3 = y$, what is the value of y when $x = 0$?

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5. Jim works in a sporting goods store. He earns an hourly wage plus commission. One week last October, Jim worked for 15 hours and earned $72.50 in commission. If his total earnings were $166.25, write an equation that can be used to determine Jim's hourly wage.

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6. The length of a rectangle is 6 feet more than twice the width. If the length is 24 feet, what is the width? Write an equation and solve, including units in your answer.

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7. In a triangle, the second angle measures twice the first, and the third angle measures 5 more than the second. If the sum of the angles' measures in 180º, find the measure of each angle. Show all of your work even if you use mental math or a calculator.

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8. In 1997, the winning car of the Indianapolis 500 (a race of 500 miles) had a time of 3.4 hours. What was the average speed of the winning car? Write an equation and solve, including units in your answer.

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