Algebra 1   Unit 1: Relationships Between Quantities and Expressions   Practice
Day 2: Translating & Creating Algebraic Expressions   **Name:** _____

Practice Assignment   **0   25   50   75   100**

1. Write each phrase as an algebraic expression:

a. Fourteen decreased by a number p.   b. Five more than twice a number.

c. 14 less than m.   d. 18 more than y.

e. The quotient of a number and 9   f. The product of 5 and y added to 3

g. 4 times a number cubed decreased by 7   h. 3 more than four times a number

2. For each word problem, show the work to how you arrived at your answer for parts A and B. Define the quantity that is changing each time in part C. Using your work, create an algebraic expression for part D.

a. *You buy 100 yo-yos to give away as prizes at a carnival.*

   a. If 12 people win a prize, how many yo-yos will you have left?

   b. How many yo-yos will you have if 34 people win a price?

   c. What quantity is changing each time? What variable will you use to represent this quantity?

   d. Write an expression to represent the scenario.

b. *Bulk trail mix costs $1.95 per pound.*

   a. If you purchase 4 pounds of trail mix, how much will that cost?

   b. If you purchase 7 pounds of trail mix, how much will that cost?

   c. What quantity is changing each time? What variable will you use to represent this quantity?

   d. Write an expression to represent the scenario.

3. Simplify:

a. $7(2 - 3x) - 5(6 + x) + 4x$

b. $-4(-2x + 5) + 2(\frac{1}{2}x + 2)$

c. $-6(-4x + 8) + 10 + 3(-5x + 7)$

d. $8 - 4(-x - 11) - 5(x + 9) + 13x$

4. Evaluate:

a. $\frac{-7d + 14}{2}$ when d = -4

b. $32.68 - 4.15q$ when q = 10