Unit 1 Week 5

Integer Test Review Name:_____

Simplify.		
-15 + 8	-32 + -15	18 - (-40)
9 - 20	13 + (-10)	7 - 9
3a + 2b - 7b - 2a	6c - 5d + 7c - 10d	-8(3b - 8c)

Solve the following word problems.	
John won $5 and he did it 3 times in a row. Draw a number line to show how much money John has now. What equation did you use to solve this?	
Steve walked backwards 7 feet, then forward 8 feet. What integer is he now at? What equation did you use to solve this?	
Susan lost $3 each day for 4 straight days. Draw a number line to represent where Susan is now at. What equation did you use to solve this?	
The stock market fell 25 points on Monday and rose 2 points on each of the next 5 days. What is the current stock value?	Find the average of the following numbers: -5, -8, -2
If you fall 100 feet in 4 seconds, how many feet did you fall in 1 second?	A triangle has 3 equal sides. One side is (5a - 2b) feet long. What is the perimeter of the triangle?

Integers Unit 1 Practice Test Name:_____

1. Circle TRUE or FALSE for each statement below. For each FALSE statement write an equation using integers that proves why it is false.

   A negative integer added to another negative integer always equals a negative integer. TRUE FALSE

   _____

   The difference between two negative integers sometimes equals a negative integer. TRUE FALSE

   _____

   The product of two negative integers will always be negative. TRUE FALSE

   _____

2. Each side of the triangle at right is $2x + 5$. What is the perimeter?

3. Find the solution for the following integer operations. Circle the expression with the greatest value.

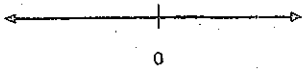
   $-3 - 6$ $\quad -3 \div -6$ $\quad -3 \circ -6$ $\quad -3 + 6$

4. Simplify the following expressions. Circle the expression equivalent to $5a + 35$.

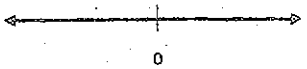
   $5(a + 35)$ $\quad -7a + 25 - 2a + 10$ $\quad 5(a + 7)$ $\quad 5a + 29 + a + 6$

5. Illustrate the following situations on the number lines below using integer addition models.

   Situation 1: Blair owes her friend \$7 and earns \$4 from allowance.



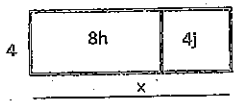
   Situation 2: The football team gained 7 yards, then lost 4 yards.



6. Chloe solved a math problem incorrectly. Identify where she made the *first* error, and rework the problem to arrive at the correct solution.

   PROBLEM: $5(3x + 6 + x) - 7x + 10$
   STEP 1: $5(4x + 6) - 7x + 10$
   STEP 2: $20x + 6 - 7x + 10$
   STEP 3: $20x - 7x + 6 + 10$
   STEP 4: $13x + 16$

7. The rectangle below has a width of 4 units. The area of the larger rectangle is 8h, and the area of the smaller rectangle is 4j. Write an expression that is equivalent to the missing length represented by x.



8. In which situation will the end result be valued at 0?
   A. A stock price falls 24 cents on Monday and rises 6 cents each day on Tuesday, Wednesday, Thursday, and Friday. How much did the stock's value change this week?
   B. A potassium ion has 19 protons each having a charge of +1. It also has 18 electrons each having a charge of -1. What is the overall charge of the potassium ion?
   C. A chlorine ion has 17 protons each having a charge of +1. It also has 18 electrons each having a charge of -1. What is the overall charge of the chlorine ion?
   D. A stock price rises 18 cents on Monday and falls 3 cents each day on Tuesday, Wednesday, Thursday, and Friday. How much did the stock's value change this week?

9. In the following problem a +1 represents an individual getting on a bus and a −1 represents an individual getting off the bus. Omar records the change in the number of people on the bus at each stop. He records the following: -6, +5, -8, +2, -13. What is the average change in people for each of the last 5 stops? If your answer is a negative number, explain how this describes the individual's movement on the bus.

_____

10. Simone just joined a local gym. The cost for his gym membership is \$35 per month. This amount will be deducted from his bank account at the beginning of every month for ONE YEAR. Write an integer that represents the effect on Simone's bank account for his gym membership for one year?

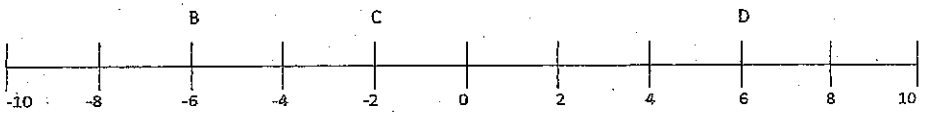
11. Emily works x hours each day. Ana works 2 more hours each day than Emily. Write an expression using the distributive property that calculates the number of hours Ana worked in a 5 day week. Write another expression that simplifies this expression.

12. At Goodberry's Creamery, all flavors of frozen custard are \$2.25 per scoop. If a customer buys "*m*" scoops of mint chocolate chip and "*b*" scoops of butter pecan flavors, write an expression using the distributive property that gives the total cost of the purchase. Write another expression that simplifies this expression.

13. Simplify the expressions below. Circle the expression that would be equivalent to $-5(6 + -4 + -3)$.

   A. $-5(6) + 5(-4 + -3)$
   B. $-5(6) + -5(-4 + -3)$
   C. $-5(6) + (-4 + -3)$
   D. $-5(6) - (-5 + 4)$

14. Which statement is true of points C and D on the number line below?



   A. $C + D > 0$ $\quad$ B. $D - C < 0$ $\quad$ C. $C \circ D > 0$ $\quad$ D. $C + D = 0$

D