Name: _____

Test #3 – Fractions, Decimals & §2.4-3.5
Pre-Algebra @ Gavilan
Spring 2002

Instructions: *Write your name before you begin the test. Show the work to each problem in a clear and organized manner and box your final answer. If you don't show your work on the exam, please indicate where I might find the work, and label it clearly. If there is no work shown for a problem it will be entirely correct or entirely incorrect! Word problems must show all work in the manner that has been shown in class to receive full credit – an answer only may not receive full credit. Work carefully. Good Luck!!*

1. Expand and simplify

   a) -1^2

   b) $(-1)^2$

   c) $(-2)^3$

2. Simplify

   a) $^1/_2 - 1\ ^3/_5$

   b) $0.25 - 1.7$

   c) $^1/_9 + 0.3$

   d) $2\ ^2/_5 - 1.75$

e) $\dfrac{|15 - 25|^2}{5 + -12 \div 3}$

3. An alpine skier is air lifted to an elevation of 9,854 feet above seal level. He experiences his first fall 1,282 feet below his drop. Using integers and integer addition find his elevation above sea level after his first fall.

4. Simplify

a) $6(x - 4)$

b) $12x - 9 - 3x + 2$

c) $7x - (5x + 2)$

5. **Solve** for x and **check** each answer (you must use algebra to solve)

a) $x + 13 = 92$

b) $45x = 135$

c) $5x + 4 - 2x = 13$

6. Solve $4x + 9 = 2x + 13$

7. Solve

a) $\frac{1}{2}x = 5$

b) $2x - \frac{1}{3} = 2\frac{1}{2}$

8. Solve

a) $x - 0.1 = -2$

b) $2x = 1.5$

9. Translate the following. Define your variable, if needed.

a) Five times some number subtracted from two is 8.

b) The difference of 8 and –9 is 17.

10. Evaluate when $x = 2$, $y = -1$ and $z = -4$

$$x + y^2 - z$$

Extra Credit

(4pts.) 1. James is 5 years older than his brother Mark. If their ages total 25, find both Mark and James' ages using algebra. *(You must write out the information appropriately and give an equation and solve that equation.)*

(4pts.) 2. Distance is equal to rate multiplied by time. Use algebra and an algebraic set up, to solve the following:

A train travels for 3 ½ hours and finally arrives at its destination 217 miles away. How fast was the train traveling?