Algebra 3-4   Name: _____ Per:_____
Unit 1 Solving Pre-Test   Date: _____

1. Solve algebraically. Check your solutions.

a. $2x - 5 + 3(x - 1) = 4x + 7$

d. $2|x - 3| - 7 = 5$

b. $3\sqrt{x + 2} + 1 = 1$

e. $\frac{3x}{5} - 1 = \frac{x+1}{5}$

c. $-2(x - 3)^3 + 3 = 19$

f. $6 - 4(x + 5)^2 = -30$

Please rate your understanding of solving equations	1 (No idea)	2 (Limited Understanding)	3 (Kinda Got It)	4 (Can Teach It!)

Comments:

2. Solve the systems of equations using algebra.

a. $y = 20 - 5x$
   $y = 4x - 16$

b. $3x - 2y = 4$
   $3x - 5y = 10$

c. $y = x^2 + 3x - 10$
   $y = 3x + 15$

Please rate your understanding of solving systems of equations	1 (No idea)	2 (Limited Understanding)	3 (Kinda Got It)	4 (Can Teach It!)

Comments:

3. Solve by writing a system of equations and solving algebraically.
Five burgers and eight salads cost a total of $81. Each burger costs $2.00 less than a salad. Find the cost of a burger and the cost of a salad.

4. For her birthday, Beatrice received the Bam 3-Person Water Balloon Launcher. She immediately took it to the Cleveland football field to test it out. On the initial flight, the launched water balloon followed the path represented by the equation $y = -2(x-16)^2 + 80$, where $x =$ the horizontal location of the water balloon in yards and $y =$ the height of the balloon above the ground in feet.

a

a. Sketch a picture.

b. How far along the ground did the water balloon travel? Show how you found your answer.

c. When is the water balloon above 48 feet? Show/explain your work.

Please rate your understanding of these word problems	1 (No idea)	2 (Limited Understanding)	3 (Kinda Got It)	4 (Can Teach It!)

Comments: