Math 2: Review for Unit 1 Test

Variations. Show all work. (Decimals/Fractions are OK!)

1. Suppose y varies jointly as x and z. Find y when x=6 and z=13, if y=1000 when x = 18 and z =10.

2. y varies inversely as x. If x=5 when y=45, what is y when x=3?

3. If y varies directly as x and x=5 when y=30, find x when y=30.

4. y varies inversely as the square root of x. and y =4 when x=100, find y when x=25.

SHOW YOUR WORK!!! (you will not receive full credit other wise)

5. The weight of a body on or above Earth's surface varies inversely as the square of its distance from Earth's center. Earth's radius is about 4000 miles. How much would a 200-pound man weigh 100 miles above Earth's surface?

6. The weight, c, of materials for deck varies jointly with the width, w, and the length, l. If c=$299.10 when w=17 and l=36, find the cost when w=12 and l=50.

7. Write an equation and solve for x if the area of the rectangle is 60 square units. (hint: Area=length*width)

5x - 11

12