Direct Variation Quiz
03/23/2012

Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and select the correct answer.**

1. Terrell is growing vegetables in his garden. When the temperature is 80º F, he must water his plants with 2.5 liters of water to keep them healthy. If the amount of water Terrell gives to his plants varies directly as the temperature, how much water will he use when it is 90º F? Round your answer to the nearest tenth if necessary.

A. 12.5 liters
B. 2.2 liters
C. 25 liters
D. 2.8 liters

2. The number of points, *p*, that you earn on an exam varies directly as the number, *n*, of correct problems. Find the equation that relates the two variables if each question is worth 4 points.

A. $p = 4n$
B. $pn = 4$
C. $n = \frac{4}{p}$
D. $p = \frac{n}{4}$

3. The scores Ms. Saba's students receive on their projects vary directly as the number of hours they spend working on the project. If students that spend 5 hours on the project receive a score of 78 points, what score will students receive if they spend 6 hours on the project? Round your answer to the nearest point, if necessary.

A. 84 points
B. 94 points
C. 79 points
D. 65 points

4. Mr. Zakowski's physics class is building a radio. So far, the class has learned that the frequency of a radio wave varies directly as the length of the radio wave. A 750 meter radio wave has a frequency wave of 400 kilohertz. What is the frequency of a radio wave that is 300 meters long?

A. 160 kilohertz
B. 850 kilohertz
C. 1,000 kilohertz
D. 300,000 kilohertz