

**Quiz 4 VA**

**Directions:** You have 20 minutes from the start of class to complete this quiz.  
**Failure to show all work on problems 2 and 3 will result in a score of zero.**

1. How many significant digits are in each of these numbers? Use the rules discussed in the textbook and class. (.25pts each)
  - a. 25                    2
  - b. 0.0001            1
  - c. 1.2501            5
  - d. 1001                4
  - e. 400.000           6
  - f. 23.40               4
  - g. 004                 1
  - h. 0.1003            4
  
2. A map key states that "1cm = 2km." Answer the following questions. **SHOW ALL WORK!**
  - a. Compute the scale ratio for this situation using centimeters. (3pts)  
 $1 / 200,000$  (1cm on the map = 200,000cm on the ground)
  
  - b. If the distance from the town park to City Hall on the map is 10cm, how many kilometers away is City Hall from the town park? (1pt)  
20km
  
  - c. Interstate 43 cuts through the city. Its length from one end of the city corporation limit to the other is 14km. Assuming the map shows this entire stretch of highway, how long would the road be in centimeters on the map? (1pt)  
7km
  
3. You are comparing the cost of two televisions. Television A costs \$500. Television B costs \$700 dollars. Do the following. **SHOW ALL WORK!**
  - a. Compute the absolute difference in cost between the two televisions using television A as the reference value. (2pts)  
Absolute difference = compared - reference  
= \$700 - \$500 = \$200
  
  - b. Compute the relative difference between television A and television B using television B as the reference value. You may leave your answer as a SIMPLIFIED fraction. (3pts)  
Relative difference = (compared - reference)/reference  
= (\$500 - \$700)/\$700 = -2/7