Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Date\_\_\_\_\_\_\_\_\_\_\_\_\_  
Quiz 1

1. On average, the acceleration due to gravity is 9.807 m/s2. A science student measured it as 9.760 m/s2. To the nearest hundredth of a percent, what was the student’s percent error?
2. The city is planning to install streetlights and wants five lights along a walkway of 60 yards. If there is a light at the beginning and at the end of the walkway and the lights are evenly spaced, what is the distance between each light?
3. If four points are collinear, are they also coplanar? Explain.
4. Which statement is true? Make a drawing to show why each other statement is not always true.
   1. Any two lines are coplanar.
   2. Any two intersecting lines are coplanar.
   3. Any three intersecting lines are coplanar.
   4. Any two perpendicular lines are noncoplanar.
5. It is very important that a camera be held as still as possible when using certain photographic techniques. Explain why professional photographers use tripods to hold their cameras steady instead of a stand with four or more legs. Name a postulate or theorem in your explanation.
6. A student says that two points define a line, three points define a plane, and four points define space. Are the student’s definitions correct? Explain.
7. Can a conjecture be proved or disproved by studying examples or cases of the conjecture? Explain.
8. A rectangle has side lengths of 30 meters and 36 meters. If the side lengths of the rectangles are doubled, verify that the perimeter also doubles.
9. The peak of a mountain is located at the coordinate (120,0). The hiker starts at the bottom of the trail at coordinate (0,125). If each unit on the coordinate plan represents 10 meters, how far will the hiker walk if he gets to the peak? Round to the nearest tenth.
10. Find the converse and determine whether it is true:
    1. If x2=9, then x=3 or -3.
    2. If it is Thanksgiving Day, then it is Thursday.
    3. If a cardinal is a male, then it is bright red.