

**Measurement**

## Quiz 3

## "Tolerance &amp; English-metric Conversions"

1.) Given a tolerance of  $2.125" \pm 0.001"$  determine the upper and lower limits.

Answer: \_\_\_\_\_ upper limit

Answer: \_\_\_\_\_ lower limit

2.) You are to inspect a shipment of steel bars. Each bar has a diameter tolerance of  $0.775" \pm 0.0025"$ . What is the ***smallest*** diameter a steel bar can be and still be considered within the designated tolerance?

Answer: \_\_\_\_\_

3.) A parts manual says that a valve spring should test at  $90 \text{ lbs} \pm 10\%$  in order to be considered OK. If you test a valve spring and get a reading of 82 lbs, is the spring within the recommended tolerance?

Answer: \_\_\_\_\_

4.) A *meter* is very similar in length to:

- a) a foot
- b) an inch
- c) a yard

5.) A *liter* is similar in volume (capacity) to a:

- a) fluid ounce
- b) gallon
- c) quart

*Convert each of the following measurements to the indicated unit of measure.*

6.) 5 lbs = ? kg (*nearest tenth*)

9.) 100 km/hr = ? miles/hr (*nearest tenth*)

7.) 7 liters = ? qts (*nearest tenth*)

10.) \$0.39/liter = ? \$/gallon (*nearest penny*)

8.) 21 miles = ? km (*nearest tenth*)