

EML2322L Quiz 3 (2/16/21)

Please answer the following questions using **any** course materials (notes, hw, etc.) but do not work with others. If you mark a T/F question/statement FALSE, correct the underlined word to make it TRUE.

Name: _____

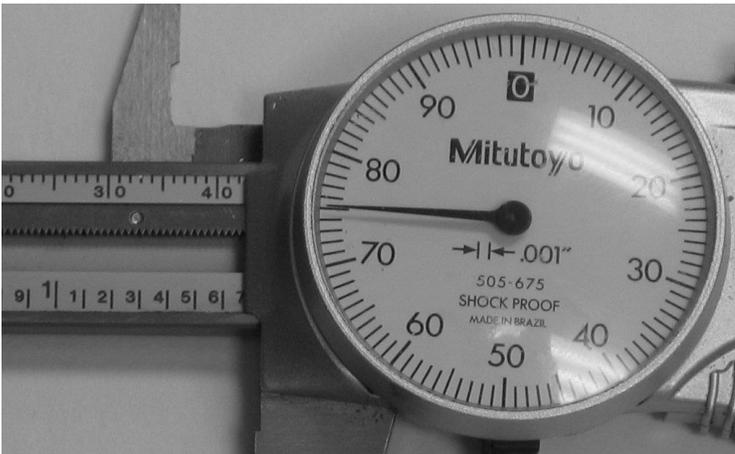
Lab Period: T5-6 / T7-8 / T9-10
 (circle one) W2-3 / W4-5 / W7-8 / W9-10
 R2-3 / R4-5 / R7-8 / R9-10

It is okay to leave the cutting tool or workpiece rotating when making a measurement under the following circumstance(s):

- A. your hand is several inches away from making contact with the tool or workpiece
- B. the tool or workpiece is rotating < 500 rpm
- C. you feel confident you have one too many fingers on your measuring hand
- D. you hope to meet a cute, wealthy doctor when your finger is reattached
- E. none of the above

Select the measurement shown on the calipers:

- A. 0.1675"
- B. 0.1775"
- C. 1.775"
- D. 1.675"
- E. none of the above



How many axes of motion does a standard engine lathe have, how are they denoted (i.e. A, B, etc.), and what are they called?

List the first four steps of the design process:

- 1.
- 2.
- 3.
- 4.

Decision matrices are used to unbiasedly evaluate different ideas based on a weighted set of objectives the design team decides are important for solving the problem.

TRUE / FALSE

Decision matrix objectives are weighted because not all objectives are of equal importance.

TRUE / FALSE

After creating a decision matrix, the concept with the highest overall value should be selected for use in the final design.

TRUE / FALSE

What is the purpose of tolerances and when should they be used?

Based on HW #2, list ten items a proper detail drawing should contain: