

## Homework - Using Comparison Instruments

Student Name \_\_\_\_\_ Date: \_\_\_\_\_

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) To measure a .3125 inch inside rounded corner, you would use a: 1) \_\_\_\_\_  
A) Radius gage B) Fillet gage  
C) Inside corner gage D) Curvometer
- 2) You wish to measure 1500 cylindrical parts produced on a CNC bar chucker. The tolerance on the parts is +/- .005 inch. These measurements could most efficiently be done: 2) \_\_\_\_\_  
A) With a vernier micrometer with .0001 inch discrimination  
B) On an optical comparator  
C) On an electronic comparator with .00005 inch discrimination  
D) With a dial indicator comparator with .001 inch discrimination
- 3) A common comparison measuring system for holes ranging from approximately 5/16 to 6 inches would be a: 3) \_\_\_\_\_  
A) Telescope gage and micrometer B) Dial bore gage  
C) Small hole gage D) Binocular gage and scale
- 4) A type of dial indicator that has general and versatile applications in machine setups is the: 4) \_\_\_\_\_  
A) Dial comparator indicator  
B) Back plunger dial indicator with mounting accessories  
C) Center gage indicator  
D) Concentricity indicator
- 5) A precise square that has the ability to indicate the amount of deviation from true perpendicularity is a: 5) \_\_\_\_\_  
A) Precision beveled edge square B) Combination square  
C) Cylindrical square or micrometer square D) Solid beam square
- 6) You wish to check the outline of a form lathe cutter to determine whether it has been properly ground. This could be done on: 6) \_\_\_\_\_  
A) A profilometer B) An optical comparator  
C) A radius gage D) A dial comparator
- 7) A type of fixed precision square that provides a single line of contact with the workpiece is a: 7) \_\_\_\_\_  
A) Precision beveled edge square B) Solid beam square  
C) Micrometer square D) Cylindrical square
- 8) You have just drilled and reamed a .250 inch diameter hole. In order to check the size, the best tool would probably be a: 8) \_\_\_\_\_  
A) Telescoping gage B) Dial test indicator  
C) Dial bore gage D) Small hole gage
- 9) When transferring height measurements using a precision height master micrometer, what should always be used? 9) \_\_\_\_\_  
A) Dial test indicator B) height gage scriber  
C) Dial comparator D) Planer gage

10) Assuming a dial indicator misalignment of 10 degrees from the axis of measurement, the cosine error in .200 inch of movement along the axis of measurement would amount to \_\_\_\_\_ of an inch?

A) .0035

B) .0053

C) .202

D) .205

10) \_\_\_\_\_