

Homework - Cutting Unified Internal Threads

Student Name _____ Date _____

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

- 1) Internal threads that are cut with a single point tool should have a bore size equal to: 1) _____
A) $P \times .541$ inch
B) The minor diameter of the internal thread
C) The minor diameter of the external thread
D) $D = \text{major } D - 2 \times \text{ basic thread height} \times \text{ percent of thread}$

- 2) To insure concentricity for a single point internal threading operation: 2) _____
A) Drill slightly under the required I. D. B) Bore the hole to the correct size
C) Center the work in a four jaw chuck D) Ream the hole to make it round

- 3) Commercial internal threads are typically cut at _____ % of full depth 3) _____
A) 60 B) 70 C) 75 D) 80

- 4) The percent of thread of the internal thread is affected by: 4) _____
A) Varying the bore diameter
B) Making taps for certain classes of fits such as 1B, 2B and 3B
C) Varying the major diameter
D) Making taps with 60, 75, and 80 percent threads

- 5) An 80 percent depth 3/8-16 UNC thread tap drill size is specified. Which of the following is correct? 5) _____
A) $1/16 = -.375 = P \times .625 - .234$ inch diameter
B) $d = .375 - (.0625 \times .541 \times 2) = .307$ inch diameter
C) $(.65/16 \times 2 \times 8) .375 = .285$ diameter
D) $.375 - (.65/16 \times 2 \times 8) = .3120$ diameter

- 6) Large internal threads are often made on the lathe with single point tools because: 6) _____
A) Various thread forms can be made and they are concentric to the axis of the work
B) Cleaner, smoother threads are produced
C) It is faster than tapping
D) It is the only way the thread can be produced

- 7) For cutting internal right hand threads, the compound rest should be swiveled to: 7) _____
A) 90 degrees B) The left 29 degrees
C) The right 29 degrees D) The right 60 degrees

- 8) Which of the following would be best suited for measuring the fit of an internal thread? 8) _____
A) Tap B) Screw pitch gage
C) Screw plug gage or mating part D) Rule

- 9) Deflection of the boring bar causes: 9) _____
A) A tapered thread
C) Chatter or a possible undersized thread
B) An oversized thread
D) None of the above

10) If $d = D - (P \times .541 \times 2)$ is the formula for finding the minor diameter of a unified internal thread, the 10) _____ diameter bore for a 1-1/2 - 6 UNC nut should be:

A) 1.320 in. B) 1.127 in. C) 1.400 in. D) .256 in.