

**PRE-TEST**

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**No Sweat  
Blueprint Reading**

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Name \_\_\_\_\_ Date \_\_\_\_\_

**MWA**

Training tools for quality excellence

1-440-823-6759

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The purpose of the *No Sweat Blueprint Reading* Pre-Test is to help determine your current understanding and working knowledge of blueprints.

The Pre-Test will help uncover your areas of weakness so that appropriate training can be prescribed which will eliminate the weakness. Do not take an undue amount of time trying to figure out the correct answer. Typically, you will either know the answer, or you won't. If you do not know the answer, your natural instinct will be to "guess." In the long run, this will not help you. Simply pass over the question and go on to the next.

Finally, this test is not intended to either qualify or disqualify you for a particular job. It simply provides a starting point from which training can be prescribed.

If you will be grading your own test, your instructor will provide you with the answer sheet when you're finished.

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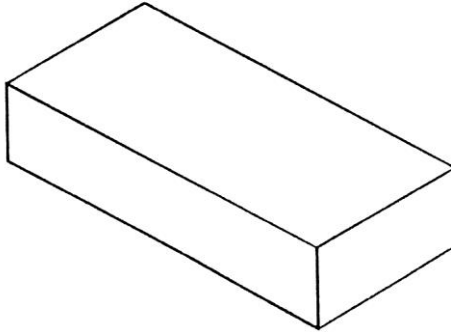
## Pre-Test

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Unless otherwise instructed, place an "X" next to the answer that best completes the following questions or statements.

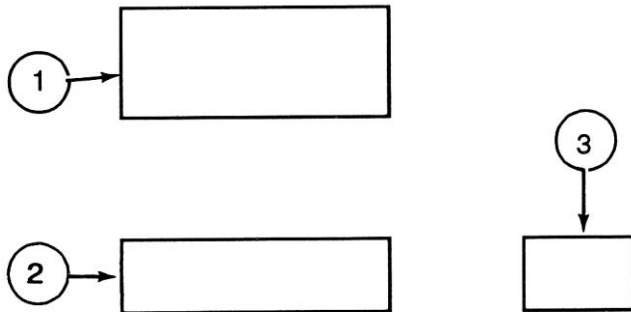
1. How many views, or projections, are possible on the simple box shown at right below?

- a.    \_\_\_ 3
- b.    \_\_\_ 6
- c.    \_\_\_ 9



2. The projection shown at right below has three views, numbered 1, 2, and 3. Match the view to its appropriate description.

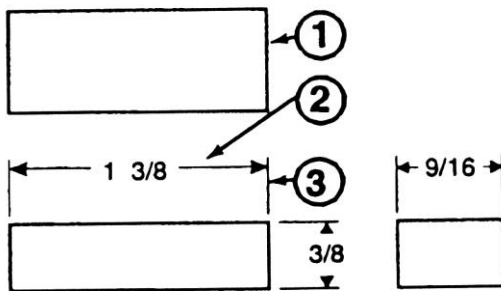
- a.    \_\_\_ Top View
- b.    \_\_\_ Right Side View
- c.    \_\_\_ Front View



3. A full, heavy line on a blueprint indicates a:

- a.  Visible Line or Object Line
- b.  Centerline
- c.  Internal Thread

4. Match the numbers 1, 2, and 3 below with their appropriate descriptions.



- a.  Extension Line
- b.  Visible Line or Object Line
- c.  Dimension Line

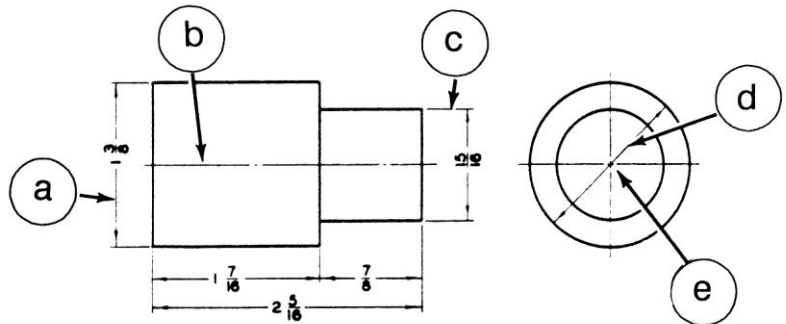
5. If the tolerance on your drawing is  $\pm .005$ , and the specified length of a part is 1.000, which of the following describes the acceptable lengths for the part?

- a.  0.995 - 1.005
- b.  1.005 only
- c.  1.004 - 1.006

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6. Write the names of the features or types of lines labelled at right below:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_

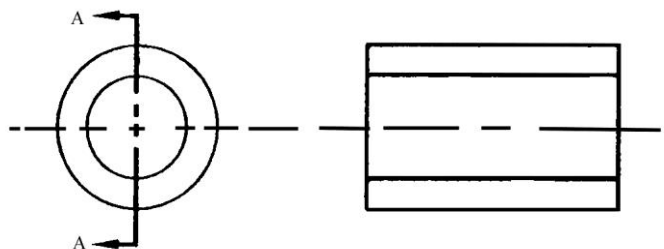


7. The scale,  $1/2 = 1$ , on a drawing means:

- a. \_\_\_\_\_  $1/2$  of the drawing is equal to 1 part.
- b. \_\_\_\_\_ The part on the drawing is between  $1/2$ " and 1" in size.
- c. \_\_\_\_\_ The actual part is twice as big as the drawing.

8. The drawing at right below shows a/an:

- a. \_\_\_\_\_ Internal thread
- b. \_\_\_\_\_ Full section view
- c. \_\_\_\_\_ Off-center diameter



9. Match the words listed on the right below with their appropriate definitions.

- |    |   |               |
|----|---|---------------|
| a. | A uniform change in the diameter of a part along its length | _____ Groove  |
| b. | A recess cut in the diameter of a part                      | _____ Round   |
| c. | A rounded corner of a part that curves outward              | _____ Fillet  |
| d. | A flattening of an outside corner of a part edge            | _____ Chamfer |
| e. | A rounded inside corner of a part                           | _____ Taper   |

10. Match the words listed on the right below with their appropriate definitions.

- |    |   |            |
|----|---|------------|
| a. | Two of the most common types are "T" and dovetail                                       | _____ Flat |
| b. | Prevents relative motion between a shaft and a part                                     | _____ Key  |
| c. | A flat area cut on a shaft to provide a surface on which a set screw can rest           | _____ Boss |
| d. | A cylindrical projection used as a bearing surface to prevent rocking of parts          | _____ Slot |
| e. | Typically oval in shape, they are used as a bearing surface to prevent locking of parts | _____ Pad  |

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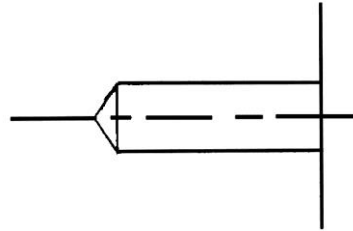
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11. A surface finish requirement is indicated by the following symbols:

- a.   $V$  or  $63\sqrt{\frac{.002}{I}}$
- b.   $\pm$  or  $>$
- c.   $^{\circ}$ ,  $"$ , or  $'$

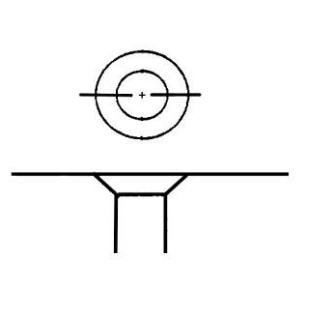
12. The drawing at right below shows a:

- a.  Threaded hole
- b.  Countersunk hole
- c.  Through hole
- d.  None of the above



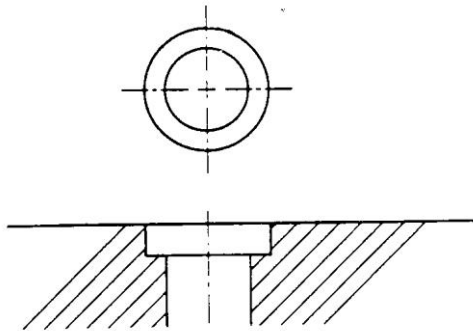
13. The drawing at right below shows a:

- a.  Countersunk hole
- b.  Tapped hole
- c.  Spotfaced hole



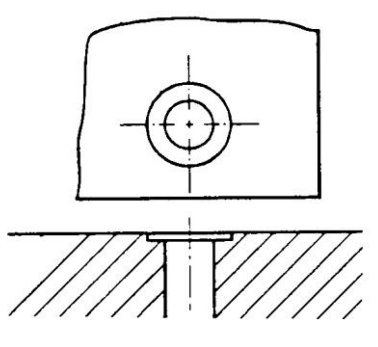


14. The drawing at left below shows a:



- a.  Threaded hole
- b.  Countersunk hole
- c.  Counterbored hole
- d.  None of the above

15. The drawing at left below shows a:



- a.  Spotfaced hole
- b.  Countersunk hole
- c.  Counterbored hole
- d.  None of the above

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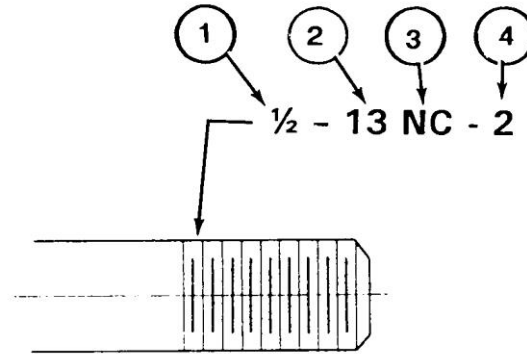
16. Look at the thread callout shown at right below. Then, next to each thread characteristic listed at left, write the numbers or letters in the thread callout that define it.

\_\_\_\_\_ Major thread diameter

\_\_\_\_\_ Thread

\_\_\_\_\_ Class of fit

\_\_\_\_\_ Thread pitch



SCORE