

## **Metalwork Theory**

Chapter 5 – Layout Work

Page 81 – “Machining Fundamentals” by John R. Walker

Name: \_\_\_\_\_ Block: \_\_\_\_\_ Date: \_\_\_\_\_

### **Learning Objectives:**

-Explain Why layouts are needed  
-Identify common layout tools  
-Use layout tools safely  
layout work

-Make basic layouts  
-List safety rules for

### **Important Terms:**

Divider:

\_\_\_\_\_

Hardened Steel Square:

\_\_\_\_\_

Layout dye:

\_\_\_\_\_

Plain Protractor:

\_\_\_\_\_

Reference Line:

\_\_\_\_\_

Scriber:

\_\_\_\_\_

Straightedge:

\_\_\_\_\_

Surface gage:

\_\_\_\_\_

Surface plates:

\_\_\_\_\_

V-blocks:

\_\_\_\_\_

Test your knowledge! – pg. 89

1. What is used to make layout lines easier to see?  
\_\_\_\_\_
2. Why are layout lines used?  
\_\_\_\_\_
3. Straight layout lines are drawn with a...  
\_\_\_\_\_
4. Circles and arcs are drawn with a ....  
\_\_\_\_\_
5. Large circles and arcs are drawn with a ...  
\_\_\_\_\_
6. What is wrong with using a pencil to make layout lines in metal?  
\_\_\_\_\_
7. A \_\_\_\_\_ is the flat granite or steel surface used for layout and inspection work.
8. What layout operations can be performed with a combination set?  
\_\_\_\_\_
9. Round stock is usually supported on \_\_\_\_\_ for layout and inspection.
10. Long flat surfaces can be checked for trueness with a \_\_\_\_\_.
11. The center of round stock can be found quickly with the \_\_\_\_\_ and rule of a combination set.
12. Angular lines that must be very accurate should be laid out with a \_\_\_\_\_.
13. The \_\_\_\_\_ punch has a sharper point than the \_\_\_\_\_ punch.
14. List three Safety Precautions that you should observe when doing layout work.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_