

**Intermediate / Advanced Woodworking**

Name: \_\_\_\_\_

**Machine Tool Test**

Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. What is the number one priority in our shop?

Safety is the number one priority in our shop.

2. List (in the proper sequence) the order of operations in the shop.

Thickness a board, rip to width and then crosscut to length.

3. List the machines used (in the proper sequence) when following the order of operations in the shop.

Jointer (or drum sander if the board is too wide), Planer, drum sander, Jointer, Table Saw, Miter Saw.

4. How long must your board be in order for it to be safely fed through the jointer?

12" long.

5. What are two common uses for the jointer?

Flattening the face of a board and straightening and squaring the edge of a board.

6. When jointing the edge of a board, if the top edge of the board is lower than the fence, what must you do?

Use a push pad.

7. What is the main function of the Planer?

To thickness and create two parallel faces of a board.

8. What must you do before turning the planer on?

Set the bed height according to the thickness of a board.

9. What should you do if your board becomes stuck in the planer?

Shut the planer off immediately then lower the bed to remove the board.

10. What is the main function of the drum sander?

To bring a board to its final, accurate thickness and to remove planer marks.

11. What must you do before turning the drum sander on?

Set the bed height according to the thickness of the board.

12. What should you do if your board becomes stuck in the drum sander?

Immediately turn the machine off (using the bumper switch) and lower the bed to remove your board.

13. What is the main function of the table saw?

To rip material to accurate width and create two parallel edges that are square to the faces of the board.

14. List 5 things that must be checked prior to using the table saw.

Blade height 1/4" above material, safety glasses on, fence properly set and locked, board is at least 12" long, standing to the left of the blade, guard in place, nobody standing behind you, push stick ready if ripping to 4" or less, no metal or foreign objects in material, blade angle is set to 90 degrees.

15. Which edge of a board must ALWAYS be placed against the fence when ripping to width on the table saw?

The long jointed edge of the board.

16. What is the main function of the miter saw?

To accurately cut material to length (crosscut).

17. List 3 things that must be checked prior to using the miter saw.

Long edge of material is against the fence, edge of material is tight against the fence on either side of the blade, board is at least 6" long, board is flat on the table of the miter saw, stop is accurately set when cutting multiple boards to the same length. Blade is square to the fence and to the table.

18. When you have a large / long board that needs to be cut down to a more manageable size, what machine should you use?

Panel Saw.

19. What 2 things must you always do before making any cut on a board?

Draw the parts to rough dimension (add the blade kerfs too!), label the parts and show the board to your instructor.

20. What is the most dangerous aspect of the dado saw?

The blade cannot be seen when cutting dados or rabbets. Always use push pads!

21. List 3 things that must be checked prior to using the panel router.

At least two clamps are being used to hold the material in place, depth of cut is accurately set, correct bit (width of cut) is installed.

22. You must never raise or lower the table on a drill press without first doing what?

Unlocking the table height adjustment handle.

Give the correct name for the following tools;



23.

Biscuit / plate joiner



24.

Block plane



26.

Circular saw



27.

Bevel gauge



28.

Sliding square

29.



Try square

30.



Speed / rafting square

31.



Awl

32.



Brad point bit

33.



Countersink bit

34.



Forstner bit

35.



Pocket hole bit

36.



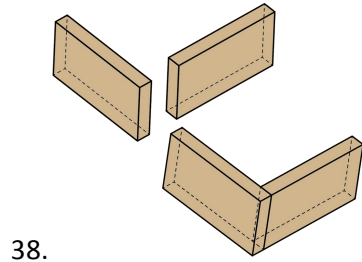
Twist drill bit

37.

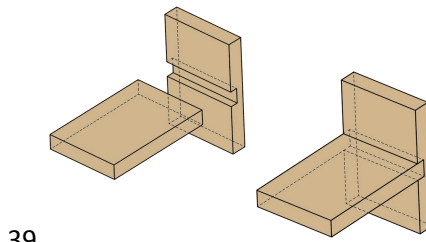


Hinge bit (self centering)

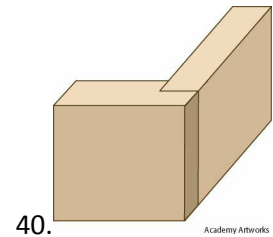
Give the name of the following types of joinery.



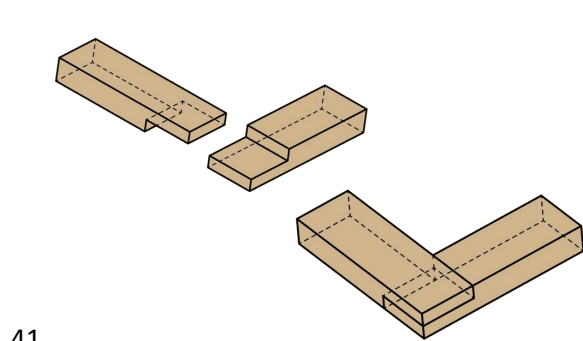
Butt joint



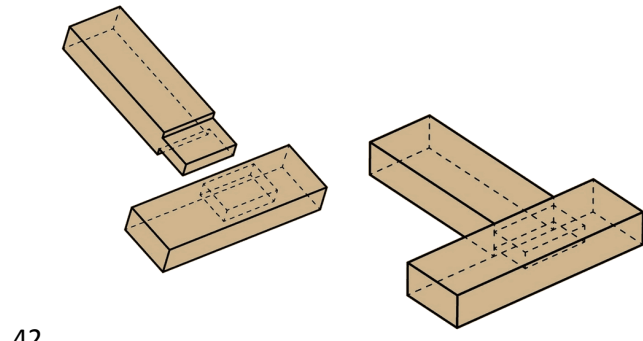
Dado Joint



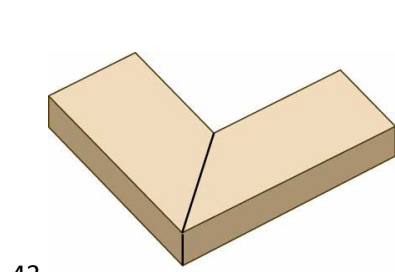
Rabbet joint



Half-lap joint



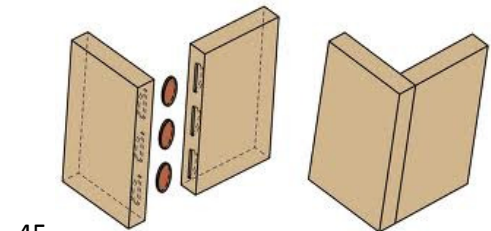
Mortise and tenon joint



Miter joint



Pocket hole joint



Biscuit joint

46. Write the formula used to calculate board feet;

Thickness X Width X Length divided by 144

47. What must be done to any assembly prior to applying glue, nails and clamps?

Dry fit your assembly, using clamps where necessary, then show it to your instructor.

48. What is the definition of the word "Kerf"?

The width of a saw cut

49. What is the purpose of a "backer board"?

Helps to prevent tearout where the blade exits your material.

50. What is the first thing you should do when beginning a new project?

Read your plans.