BAR STOOL PROCEDURE

Name: _____



Leg Procedure

1) Break out stock for the legs (Rough sizes)

   _____ pieces _____ thick, by _____ wide, by _____ long

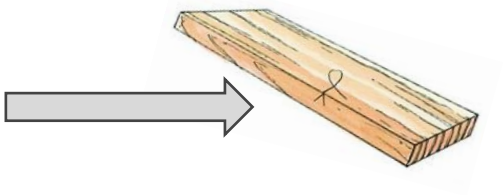
2) Cut to rough length on mitre saw of _____ long

3) Rip to rough width on table saw of _____ wide

4) I should now have _____ pieces that are _____ wide by _____ long
   - write your name on the end of each piece in **pen**

5) Joint a face size on all the pieces - mark them

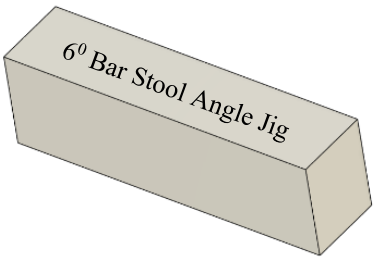
6) Joint a face edge on all the pieces - mark them



7) Plane all pieces to _____ thickness to make square (Plane opposite Face Side and Face Edge each time

8) Using the mitre saw cut one end on a compound angle of _____ degrees
   - Have the teacher help you set the angles!!!

9) Using the "Bar Stool Angle Jig", set it up as a "STOP" to get all the legs to the same final length of _____
   - Have the teacher check it **BEFORE** making the cut



Rail Procedure

1) Break out stock for top and bottom rails (Rough size). It will be 1 piece of wood that will make up **all 8 pieces later**.

   The piece will be 1" thick by _____ wide, by _____ long

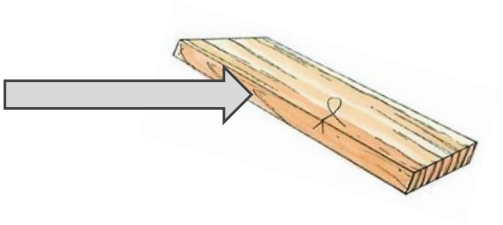
Bottom	Bottom	Top	Top
Bottom	Bottom	Top	Top

2) Cut to rough length on mitre saw of _____ long

3) Rip to rough width on table saw of _____ wide

4) I should now have 1 piece that is _____ wide by _____ long
- write your name on the end in **pen**

5) Joint face side and face edge and mark it



7) Plane your piece to ¾" thickness

8) Rip out 2 pieces to final width of _____ wide

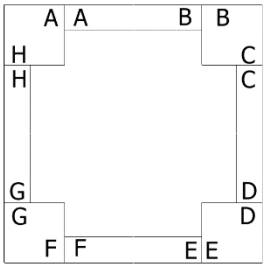
9) Cut one end on a _____ degree angle on **BOTH** pieces using the mitre saw

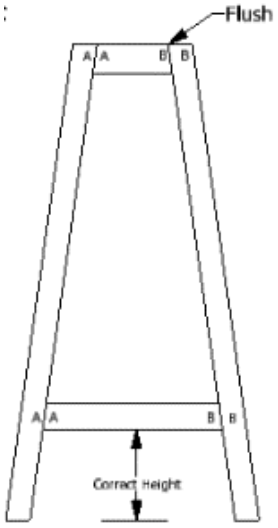
10) Using the same _____ degree angle, on the Mitre Saw use a "STOP" on the fence to
- Cut the top 4 pieces to final length of _____ long.
- Cut 2 of the lower rails at _____ long
- Cut the last 2 at _____ long



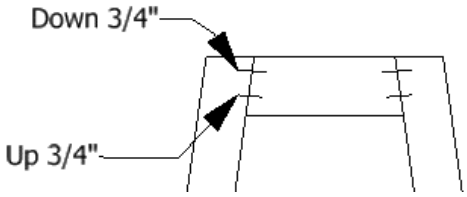
Dowel pin layout

1) Lay your stool on the workbench in two halves. Place the rails between the legs in the correct position. Hide any defects or cracks by putting the poor sides of the legs and rails to the inside. Get 2 fast acting clamps and clamp the 2 legs and two rails together. Do this twice. Now, clamp the two halves together.
- label the legs and rails from the top as shown in the diagram (A-H)
- line up the top rails flush to the legs, then the bottom rails to the correct height
- line up all the rails flush to the outside on the legs



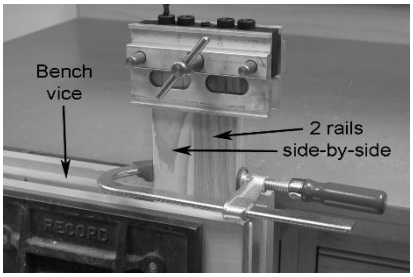


2) With the stool clamped, measure down from the top of the rails 5/8” or 3/4" or 20mm on the outside all the way around the stool - place a pencil mark across the legs and rail



3) Measure up 3/4" or 20mm from the bottom of the rail all the way around the stool - place a pencil mark across the legs and rail as above

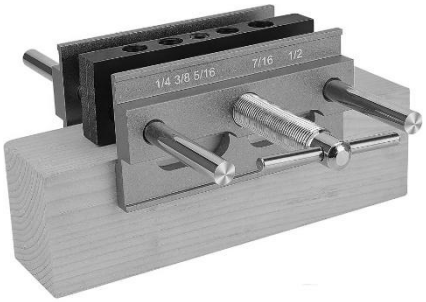
4) ***HAVE THE TEACHER CHECK IT***



5) Get a dowel jig from the teacher and set it up to drill the holes in all the rails

6) Clamp it to the end of your rail (use a second rail to support it as shown in the image
   - Carefully line it up with the pencil marks you made!!

7) Drill the hole in ALL the rails moving the drill up and down to prevent the drill bit from clogging

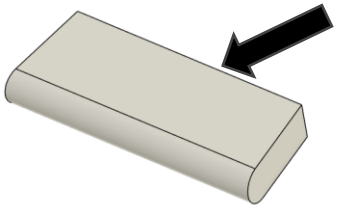


9) Drill the holes in the legs.

10) Clamp it to the side of your leg
   - Carefully line it up with the pencil marks you made!!

11) Drill the hole
   - move the drill up and down to prevent the drill bit from clogging
   - repeat for the remaining legs

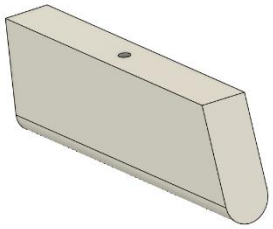
13) Router the legs & rails with a 3/8” round over bit, **EXCEPT** for the tops of the UPPER 4 Rails!



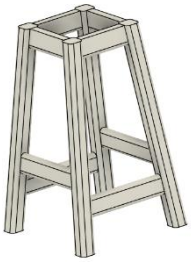
14) Sand the legs and rails up to 220grit BEFORE you assemble it!!
   - It is easier now then later 😊

Leg/Rail Assembly Procedure

1) Drill a hole in **EACH** of the UPPER rails so you can screw the Top eventually to the bottom. Use a 3/16 in drill bit on the Drill Press.



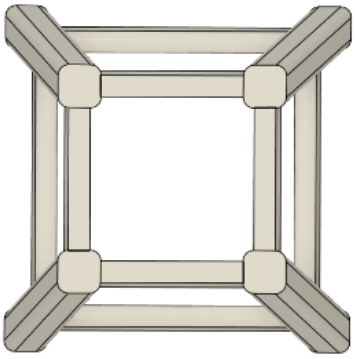
2) Time to put your Bar Stool together!

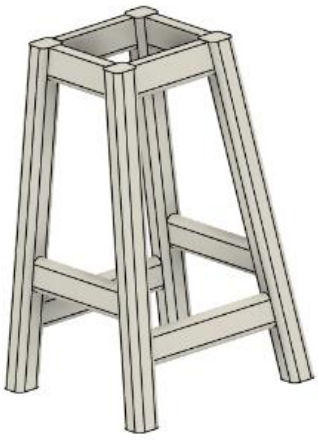


- Get 16 dowel pins from the teacher
- Apply a small amount of glue to the dowel pins one at a time and insert them into the UPPER and LOWER rails labeled A/B and E/F. Then apply a small amount of glue to the holes in the legs labeled A/B and E/F.
- match up the labeling on two legs and the upper and lower rails and connect the two together.
- clamp the legs and rail together with two bar clamps Get the 6^0 wedges from the teacher to help with this!
- make sure the legs are parallel as follows



2) When the two sets of legs/rail (A/B and E/F) have dried get another 16 dowel pins and glue the remaining two rails (C/D and G/H) in place. Make sure the rails/legs are **SQUARE/PARALLEL**





Top Procedure

1) Break out stock for the top (Rough sizes) from the SAME piece of wood
_____ pieces _____ thick by _____ wide by _____ long

2) Cut to rough length on mitre saw of _____ long

3) Rip to rough width on the table saw of _____ wide

4) I should now have _____ pieces that are _____ wide by _____ long.

5) Joint a face side and face edge on all of the pieces - mark them.

5) Rip to final width of _____ wide

6) Dry clamp the pieces together (Look at the diagram below for gluing correctly)
- Clamp **ALL face sides** on the same side and as even as possible.
- If there are any gaps between the pieces, go back to the jointer.
- Have it checked by the teacher **BEFORE** gluing.



7) Scrap off the glue

8) Plane to thickness of _____

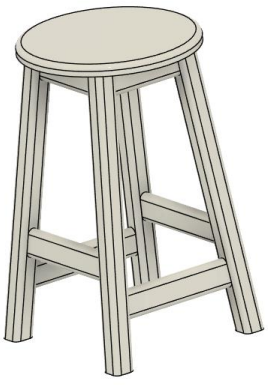
9) Put an X in the piece, then using a compass draw a circle _____ in diameter

10) Band saw round (Do **NOT** cut on the line), then disk sand to the line to get the final shape

11) Router the edges (Top or both, you decide)

12) Sand to 220 grit

Final Assembly Procedure



1) Place TOP (good side down) on the workbench. Make sure the workbench is free of anything that could scratch the top.

2) Place bottom part (leg/rails) onto the top and centre it from all 4 sides.

3) Insert #8 – 2 3/4" screws through the top 4 holes in the UPPER rails
(Do a test **BEFORE** screwing them in as you might need a different screw length)

4) Stain project 3 times

5) Complete an evaluation sheet and submit for marking (include your Drawing).