

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) **IF YOU ARE GLUING WOOD TOGETHER TO MAKE LEGS** clamp each of the 4 legs
- use 3–5 bar clamps or C-clamps to ensure NO gaps
- 9) **IF YOU GLUED WOOD TOGETHER TO MAKE THE LEGS** scrape off excess glue
- use a chisel
- 10) **IF YOU GLUED WOOD TOGETHER TO MAKE THE LEGS** joint one edge again on all 4 pieces and mark them
- make sure the face side is against the fence
- 11) **IF WORKING WITH 2 INCH MATERIAL** - Plane all pieces to _____ thickness to make square (Plane opposite Face Side and Face Edge each time)
- 12) Using the mitre saw cut one end on a compound angle of _____ degrees
- **HAVE THE TEACHER HELP YOU!!!**
- 13) Using the same compound angle cut to final length of _____

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

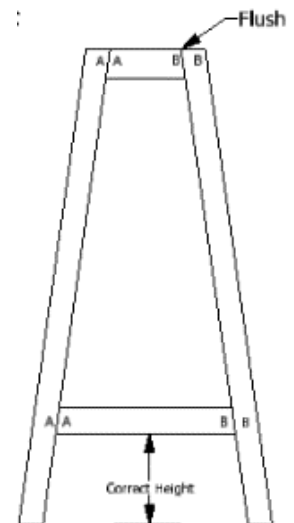
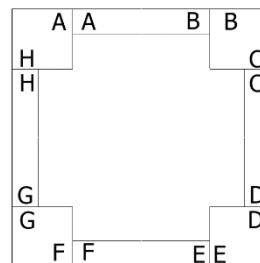
Bottom	Bottom	Top	Top
Bottom	Bottom	Top	Top

- 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 it to $\frac{3}{4}$ " 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 cut the top 4 pieces to final length of _____ long.
Cut 2 of the lower rails at _____ long and the last 2 at _____ long using the mitre saw
- use a "stop" on the mitre fence

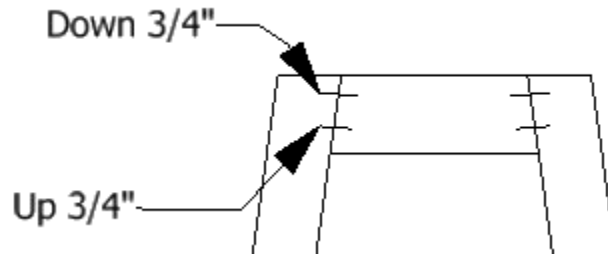
Dowel pin layout

- 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 $\frac{5}{8}$ " or $\frac{3}{4}$ " or 20mm on the outside all the way around the stool - place a pencil mark across the legs and rail



- 3) Measure up $\frac{3}{4}$ " 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
 - line it up with the pencil marks you made in step 2 and 3
- 7) Drill the hole - move the drill up and down to prevent the drill bit from clogging
- 8) Repeat steps 6 - 7 for the remaining holes
- 9) Drill the holes in the legs.
- 10) Clamp it to the side of your leg
 - line it up with the pencil marks you made in step 2 and 3

- 11) **HAVE THE TEACHER CHECK IT BEFORE YOU DRILL**

- 12) 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 and/or rails if necessary
- 14) Sand the legs and rails with 80, 120, 180 and 220 grits before you assemble
 - it easier now then later

Table Leg/Rail Assembly Procedure

- 1) Get 16 dowel pins from the teacher
 - apply glue to the dowel pins one at a time and insert them into the rails labeled A/B and E/F. Then apply glue to the holes in the legs labeled A/B and E/F.
 - match up the labeling on two legs and a rail and connect the two together
 - clamp the legs and rail together with two bar clamps
 - 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.
- 3) Tidy up any badly aligned joints with a hand plane

Cleat Procedure

- 1) Break out stock for your cleats - 1 piece 1" thick by 1" wide by 13" long
 - get this from the short ends bin
- 2) Joint face side and face edge – if needed
- 4) Plane to thickness of $\frac{3}{4}$ " – if needed
- 5) Rip to final width of $\frac{3}{4}$ " wide
- 6) Using the mitre saw cut into equal lengths of approx 3"
- 7) Layout the holes and drill
 - You will need four $\frac{3}{16}$ " holes in your cleats
 - Refer to the diagram
- 8) Screw cleats flush to the top of the rails
 - center them on the rails
 - use #8 x 1 $\frac{1}{4}$ " screws

Top Procedure

- 1) Break out stock for the top (Rough sizes)
_____ 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.
- 6) Rip to final width of _____ wide plus 1/16" (1mm)
- 7) Re-joint the table-sawn edge ONCE
- 8) Glue the pieces together as illustrated
- make sure the face side is down and FLUSH when gluing
- 9) Scrap off the glue
- 10) Plane to thickness of _____
- 11) Put an X in the piece, then using a compass draw a circle _____ in diameter
- 12) Band saw round, then disk sand to shape
- 13) Router the edges
- 14) 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 - 1 1/4" screws through cleats and screw pieces together.
- 4) Stain project 3 times, then satin wax 1 coat.