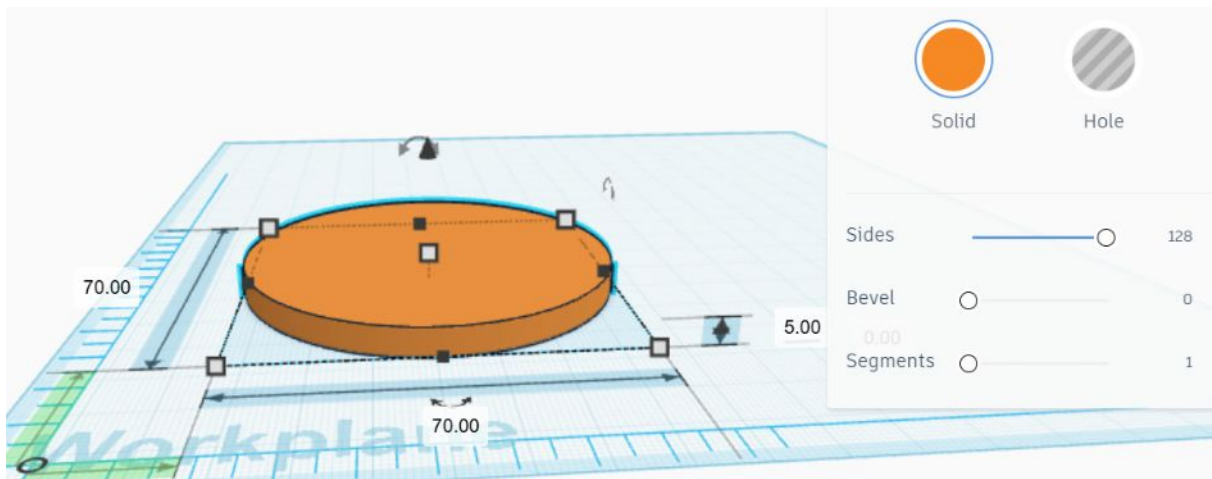
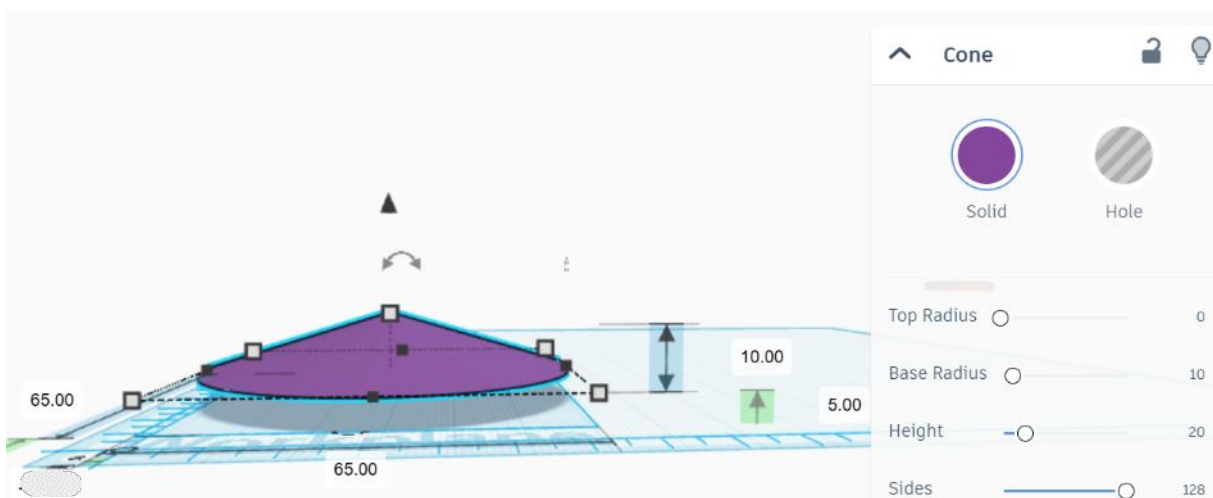
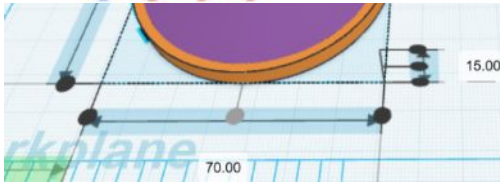
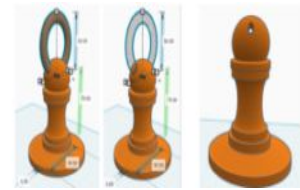


1. Open Tinkercad and click on create a new 3D Design.
2. Put the tool Ruler somewhere on the workplane to see the dimensions of your shapes.
3. Select cylinder shape and put in on workplane.
 - Change dimensions to 70 x 70 x 5 mm
 - Change sides to maximum

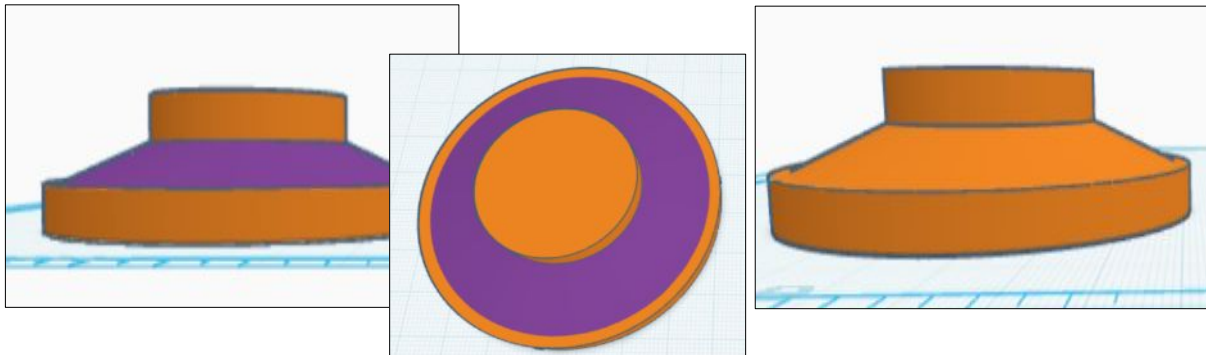


4. Select cone shape and put in on workplane.
 - Change dimensions to 65 x 65 x 10 mm, put it 5 mm above workplane
 - Change sides to maximum

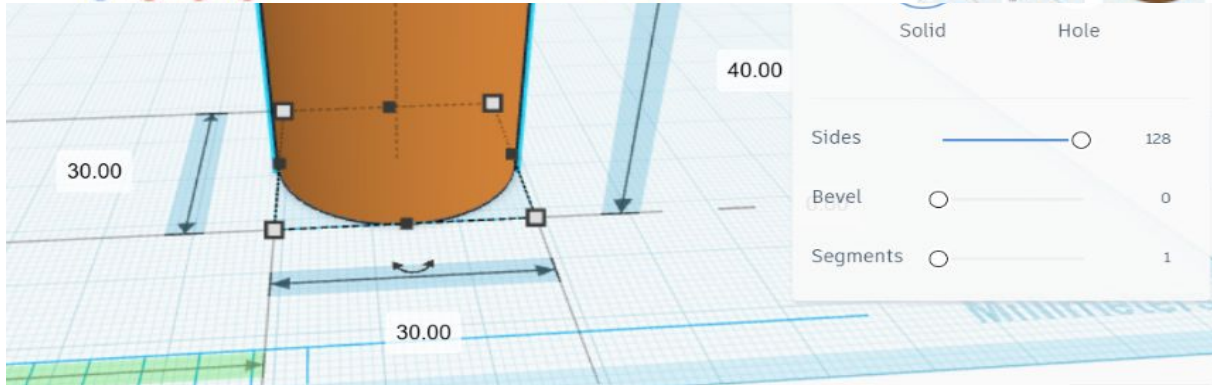
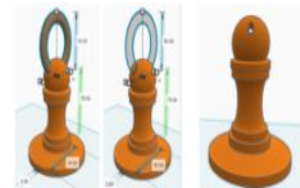




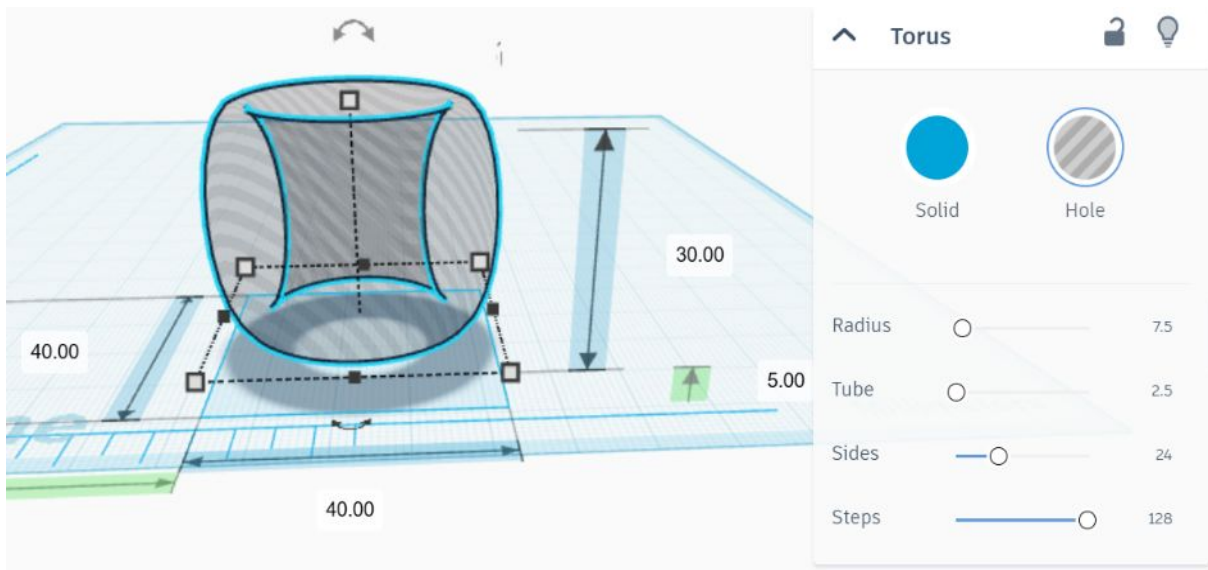
5. Select both shapes and centre them.
6. Copy cylinder shape:
 - Change dimensions to 35 x 35 x 5 mm, put it 10 mm above workplane.
 - Centre all 3 shapes and group them.

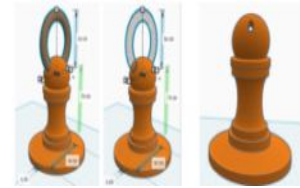


7. Select and put cylinder and torus shape on workplane.
 - Change dimensions of cylinder to 30 x 30 x 40 mm, sides to maximum

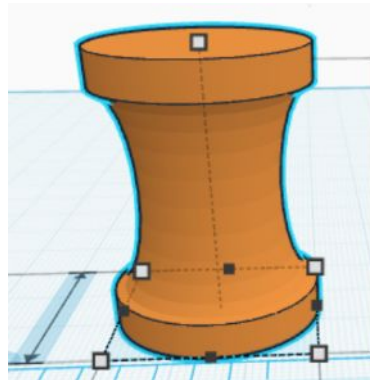
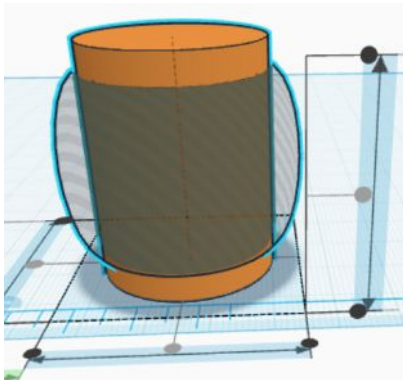


- change dimensions of torus to 40 x 40 x 30 mm, steps to maximum, put it 5 mm above the workplane, change to hole





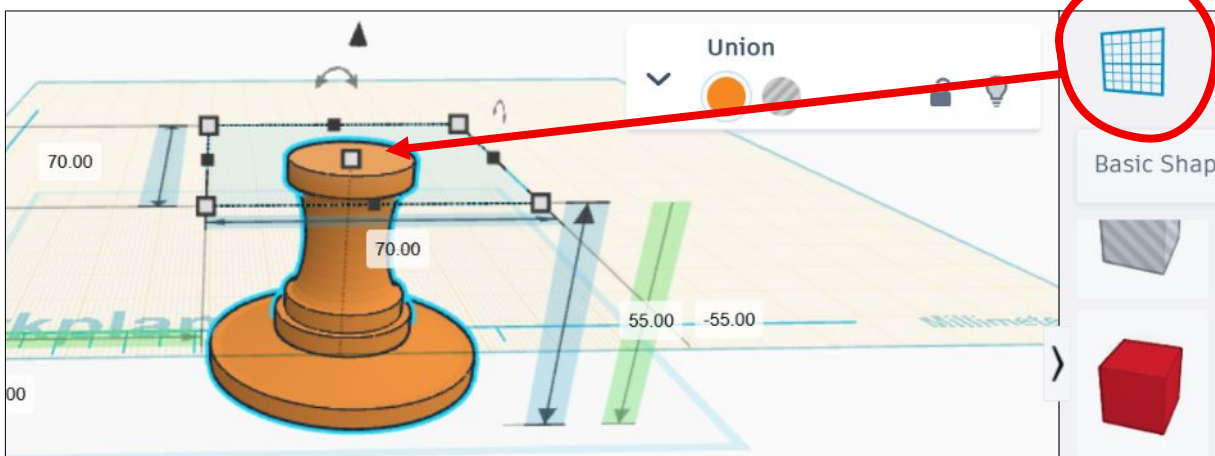
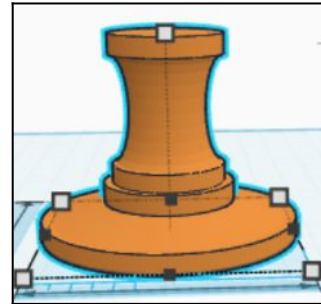
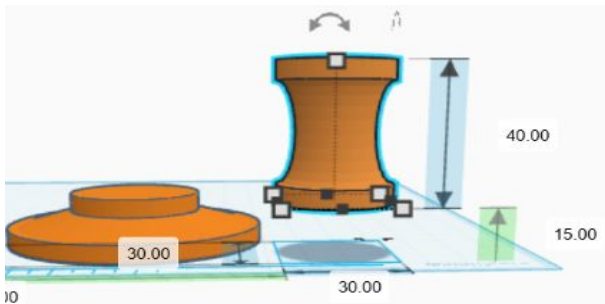
8. Select these two objects, centre them and then group them.



- Put the final

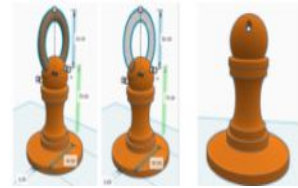
objects 5 mm above the workplane.

- Centre two grouped objects and group them.

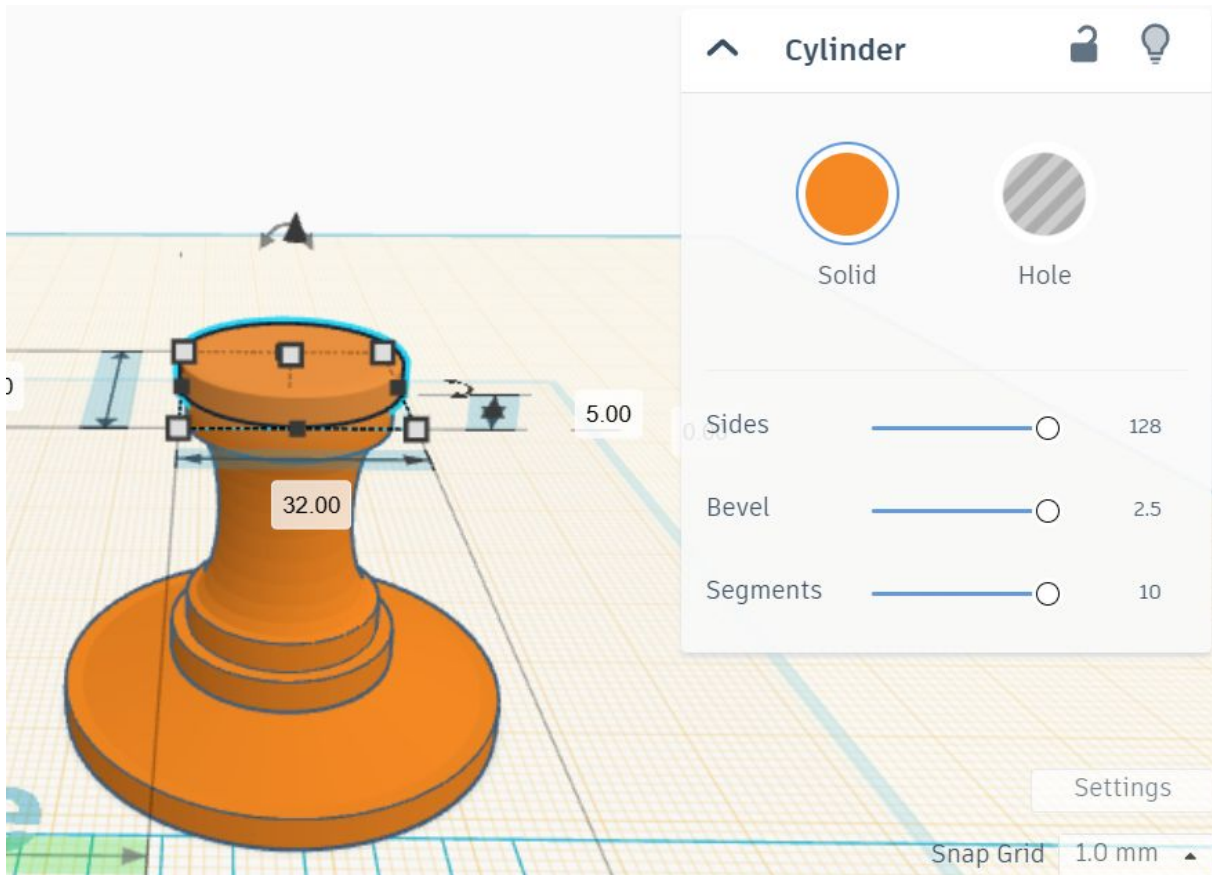


9. Click and drag Workplane tool on the top of the shape.

- Select and put cylinder shape on this new workplane and change:

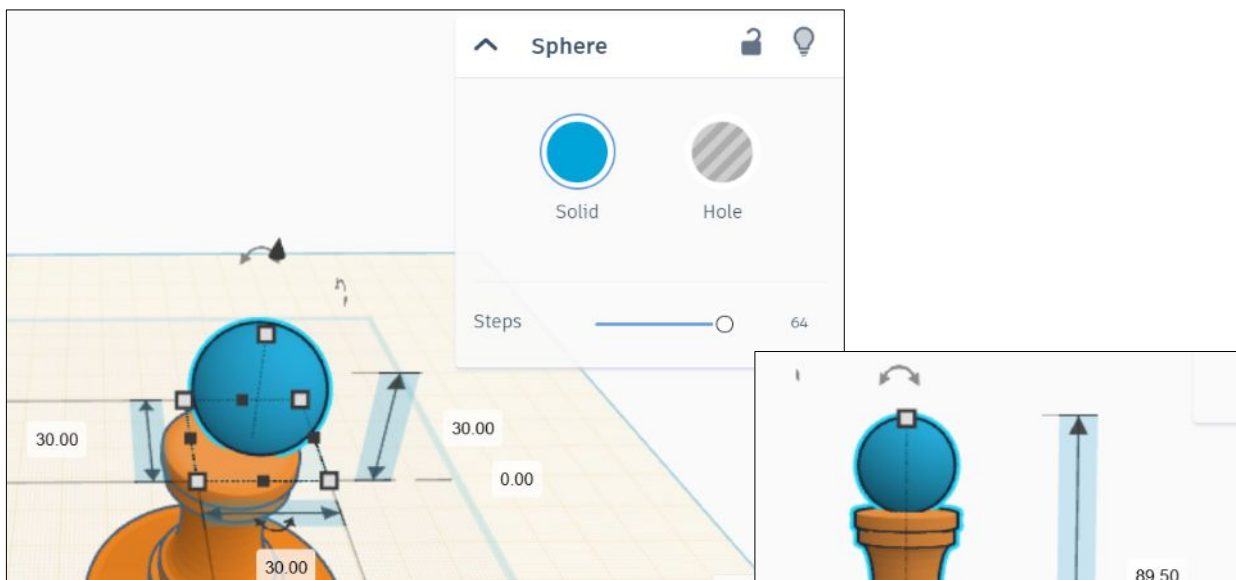


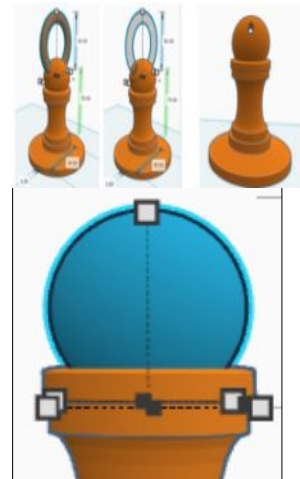
- Dimensions to 32 x 32 x 5 mm
- Sides, bevel and segments to maximum



- Then again click to workplane tool a and click to original workplane.
- Now you can centre and group objects.

10. Repeat point 9, but select the sphere shape, change dimensions to 30 x 30 x 30 mm, sides to maximum, cancel workplane tool, centre objects.

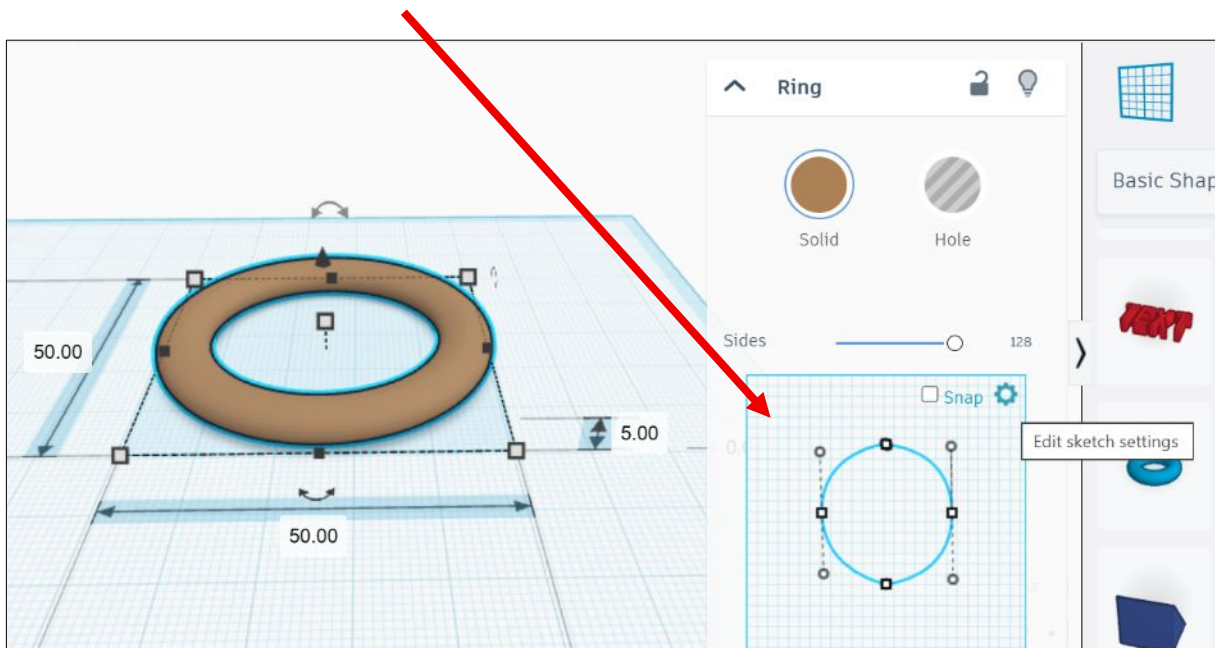




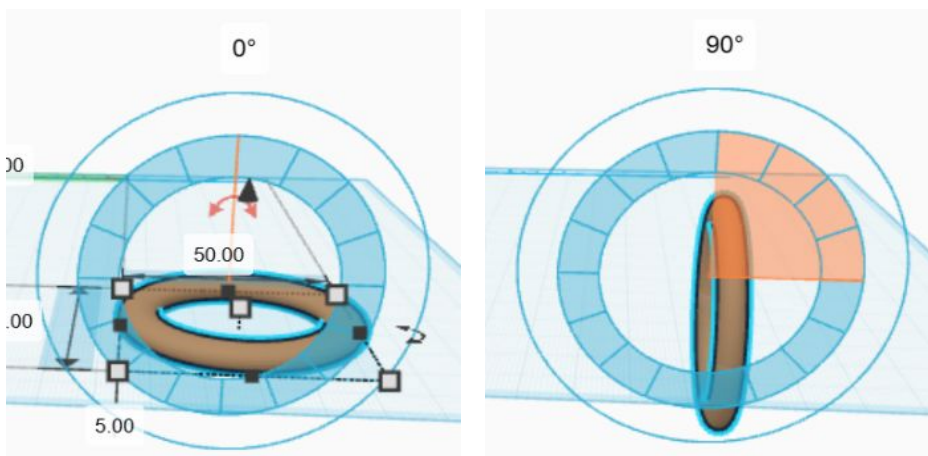
- click on sphere and use the triangle on the top to move down the object about 5 mm.
11. Now you can do the last group process to complete the pawn.
- Change the dimensions to suit yourself.

EXTRA TASK

12. If you want to use the pawn as a keychain, you have to add the hole for key ring to the pawn with original dimensions.
- Add a ring shape and change dimensions to 50 x 50 x 5 mm and edit sketch settings:
 - Move the points to create a ring.



13. Rotate the ring to 90°.



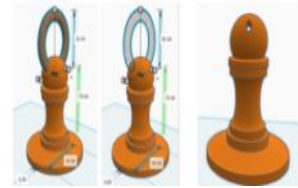


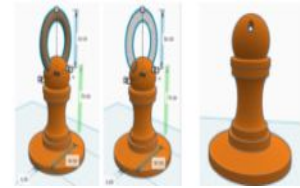
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Tinkercad
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14. Centre it with pawn and place it 70 mm above the workplane and change the ring to hole. Finally group objects.

