

Drawing with Object Snaps - Tangent

This exercise will teach you how to use the **Tangent** object snap in RealCAD.

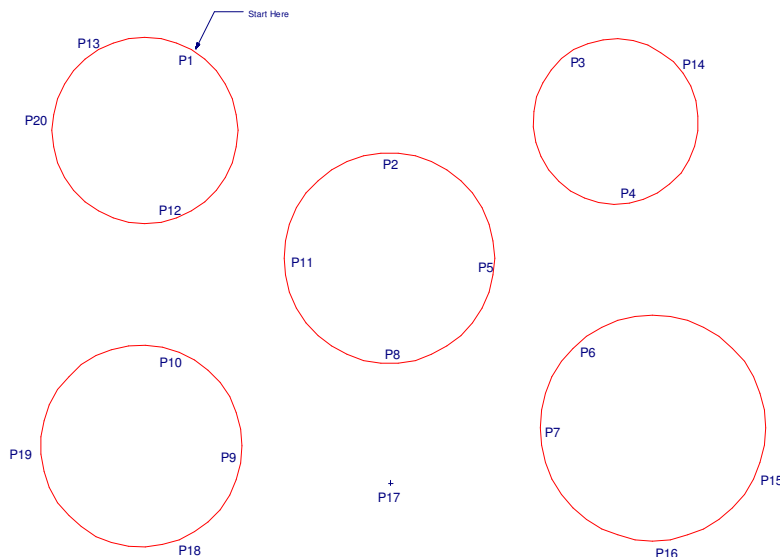
All arcs and circles can have lines, arcs and circles drawn that meet them at a tangent point, ie, right on their edge.

If RealCAD is already running, select **File, Open** on the menu and locate the **Training** folder. Open the file called "**Drawing_with_Object_Snaps-Tangent-exercise.cad**".

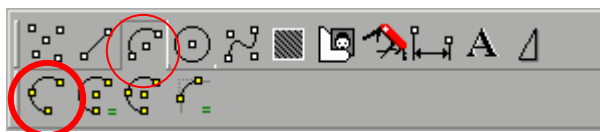
If RealCAD is not running, start it and select **Open Existing Drawing** from the Startup menu. Locate the **Training** folder and open the file called "**Drawing_with_Object_Snaps-Tangent-exercise.cad**".

Remember, if you make a mistake at any stage, you can always **Undo** it. Refer back to the **Undo and Redo** video if you need to refresh your memory.

Step 1: If necessary, **maximise** the view of the drawing so it fills your viewing area and use the **Zoom** function to make the image fill your view.



Step 2: Select the Insert arc by start, circumference and end points tool.



Step 3: Hold your cursor over the circle at P1 until a **Diamond** appears. Left click on the circle.

Step 4: Move to position P2 and repeat. Now move to P3 and click. An arc will be drawn that is just touching (**tangent** to) the three selected circles.

Step 5: Repeat Steps 3 and 4 for P4, P5 and P6.

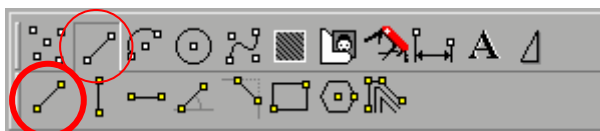
Step 6: Repeat Steps 3 and 4 for P7, P8 and P9.

Step 7: Repeat Steps 3 and 4 for P10, P11 and P12.

Step 8: Repeat Steps 3 and 4 for P13, P14 and P15.

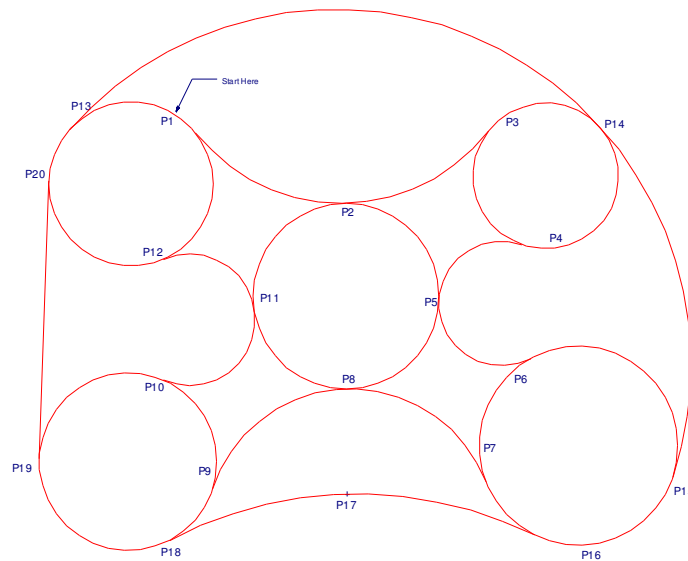
Step 9: Finally select P16 then **snap** to point P17 before finishing the arc at P18.

Step 10: Now select the **Insert line** tool.



Step 11: With the **diamond** showing, select the circles at P19 and P20. Notice the straight line is also inserted tangent to the circles. Right click twice to stop drawing lines.

Your drawing should look like this...



If you want to save your drawing as it is, select **File → Save** from the menu; it will be saved under its original name. If you do not want to save your drawing, select **File → New** from the menu and select **No** when asked if you want to save it.

That completes this exercise.
