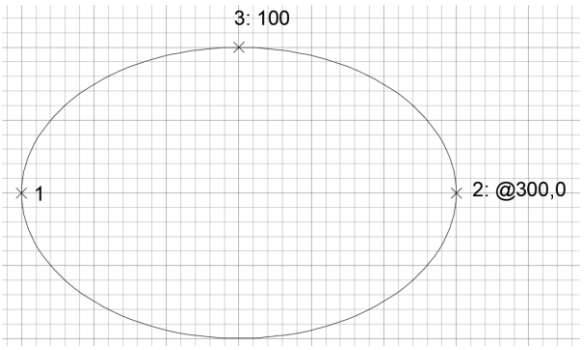
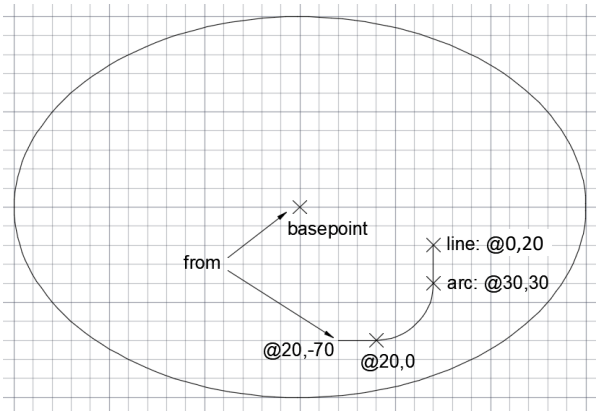
Ellipse. Tips:

1. Draw an ellipse - use **ellipse** with option **axis, end**. Determine two endpoints of horizontal axis using relative coordinates: first point anywhere and second point as @300,0. Specify half the length of the second axis as 100.

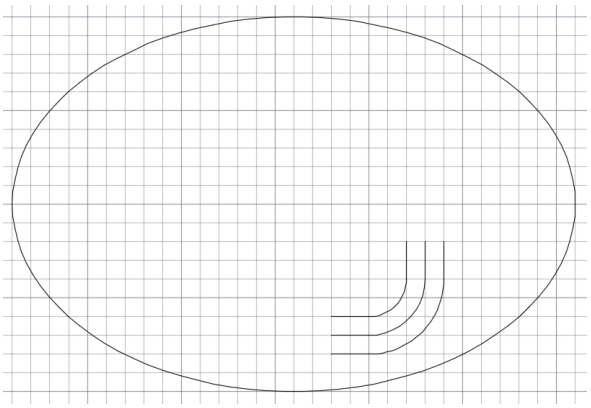


2. Draw a croissant shaped object and a small circle.

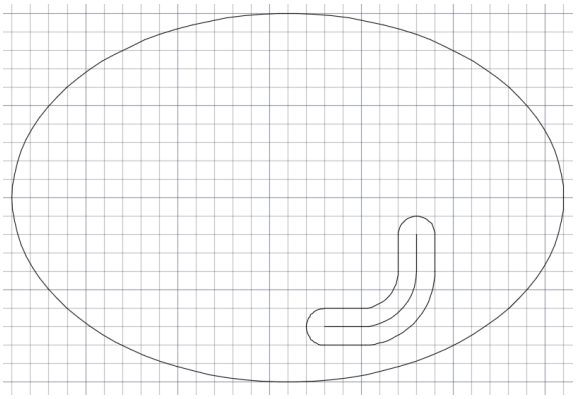
   Draw a centre **polyline** using relative coordinates. Use **from** (after selecting **pline**) to start at @20,-70 from the centre of the ellipse (specify centre of the ellipse as a basepoint).



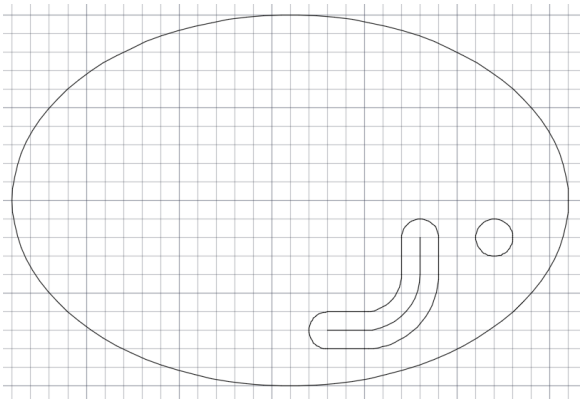
   Use **offset** with distance 10 to copy the centre polyline twice (to the left/top and to the right/bottom).



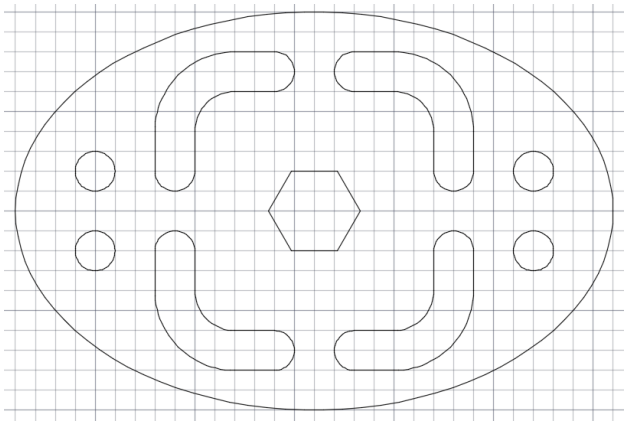
Complete the boundary – draw two arcs of radius 10 connecting previously obtained polylines (use **arc** with option **start, centre, end**). Use **join** command to convert all parts of the boundary into one single polyline.



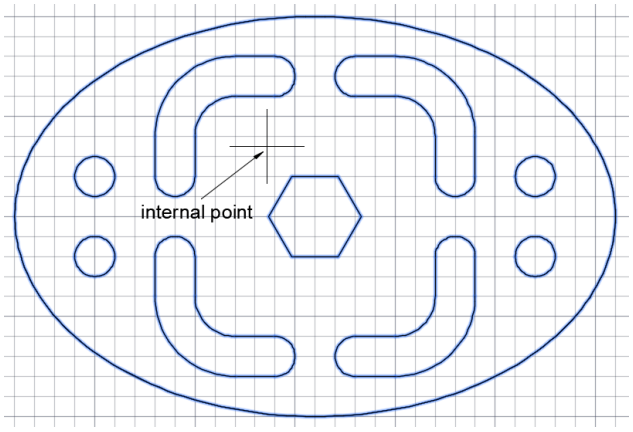
Draw a small circle with radius of 10. Determine the centre of the circle using **from** – specify point @40,0 after selecting the upper endpoint of the centre polyline as a basepoint.



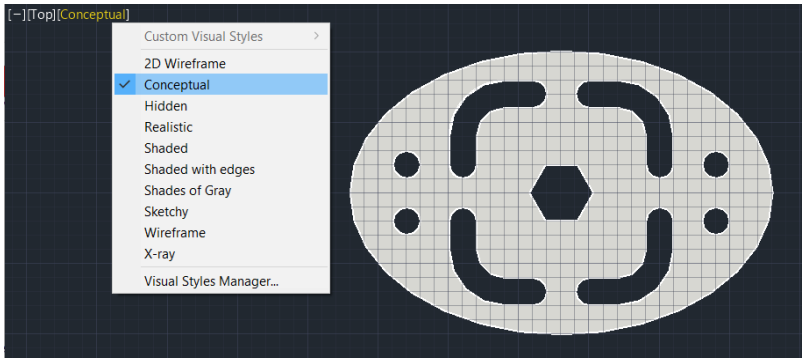
Delete the centre polyline (it is unnecessary now). Use **mirror** twice to obtain remaining objects (select horizontal and vertical axis of the ellipse subsequently as the mirror axes). Draw a hexagon in the centre of the ellipse – use **polygon** (circumscribed about circle) with radius of 20.



3. Convert all objects into regions – use **boundary** command (with boundary retention: region) and pick any internal point of the drawn ellipse outside small objects (circles, croissant shaped objects and hexagon).



4. Use **subtract** to cut from the elliptical plate the internal objects (select the ellipse firstly – accept with the enter key, and all internal objects secondly – accept with the enter key). Switch the visual style to conceptual or realistic in order to see the difference.



5. Determine the geometrical characteristics of the obtained object.