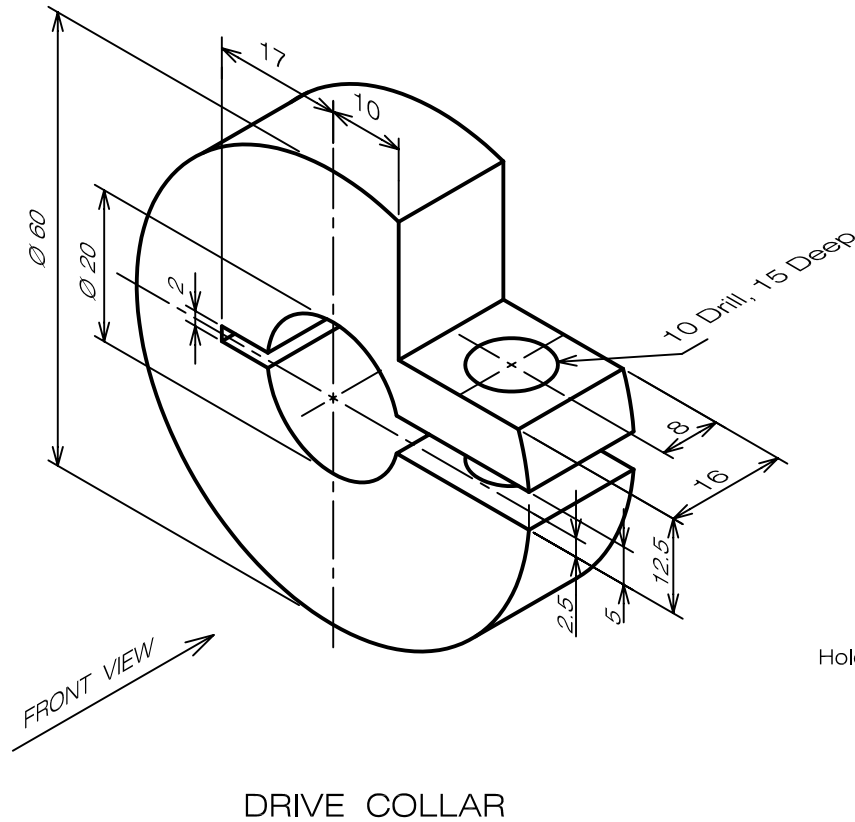Draw front and top views of the following object with a completed dimensions. Draw in scale 1:1 on A4 sheet.
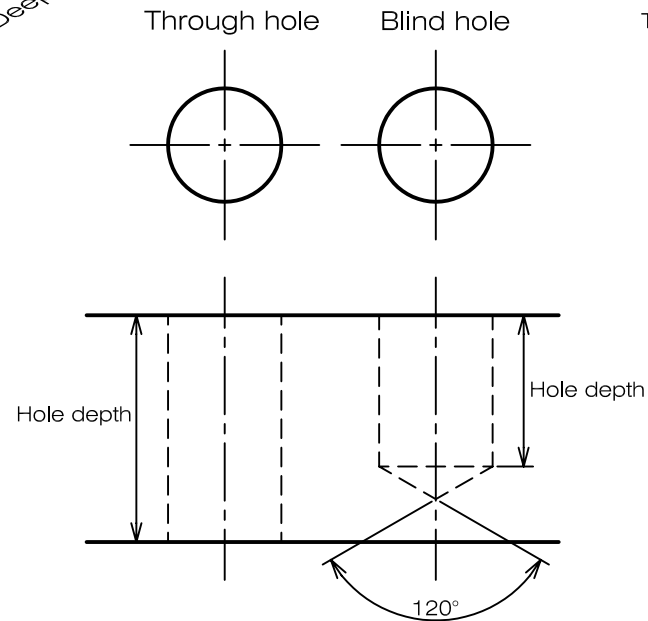
(Problem is adapted from "Fundamentals of Graphics Communication " by Bertoline)

17

10

Ø 60

Ø 20

2

10 Drill, 15 Deep

8

16

2.5

5

12.5

FRONT VIEW

DRIVE COLLAR

SCALE 1:1

What can we learn from the drawing ?

There are 2 kinds of hole that are produced by drilling. The first kind is called "through hole" and the second kind is "blind hole". Depth of a through hole is equal to the thickness at specified location to be drilled. Depth of a blind hole is equal to the distance from a surface to the position that the hole becomes conical shape. The figures on the right-below show a twist drill which is end-cutting tool used to produce holes. There is a resemble in shape between cutting edge of the tool and drawing representation.

Through hole   Blind hole   Twist drill

Hole depth

Hole depth

$120°$

Cutting edge