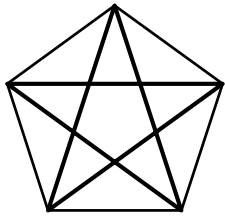[1.a] Save your drawing to your home directory under the name Surname_Name_L02a.dwg
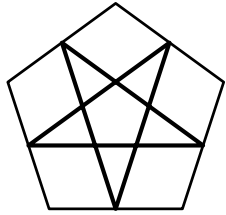[1.b] Set LIMITS to 0,0 and 120,80
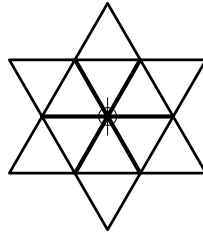[1.c] Use Zoom/All to zoom to the current drawing limits .
[1.d] The drawings may be located anywhere on the drawing area.

[2] Draw a star, starting from a pentagon inscribed in a circle of radius 6 Use ENDPOINT osnap.

[3] Draw a star, starting from a pentagon inscribed in a circle of radius 6. Use MIDPOINT osnap.
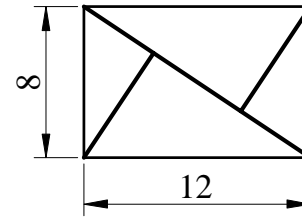
[4.a] Set the point style to the shape shown in the figure, and of size 1.0 in absolute units.
[4.b] Draw a point
[4.c] Draw the two exterior triangles using POLYGON object inscribed in a circle of radius 6. Use the NODE osnap to specify the center of the circle.
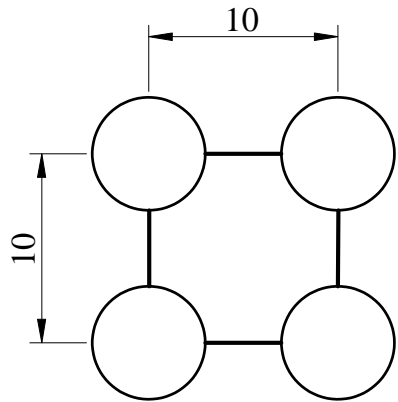[4.d] Use INTERSECTION osnap to draw the interior LINEs.

[5] Draw the figure above uing the RECTANGLE command, and making use of ENDPOINT and PERPENDICULAR osnaps.

8

12
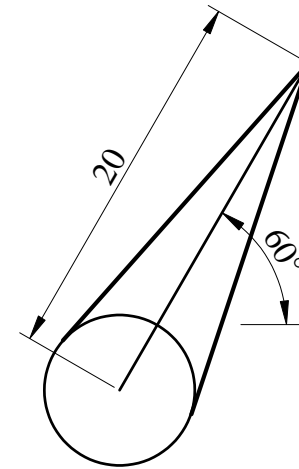
[6] Draw a circle of radius 4 and a line 20 units long, at 60° to the horizontal, starting from the center of the circle. Complete the figure by two lines TANGENT to the circle.

20

60°

[7] Draw four circles of radius 3. Connect their QUADRANTs using lines.

10

10
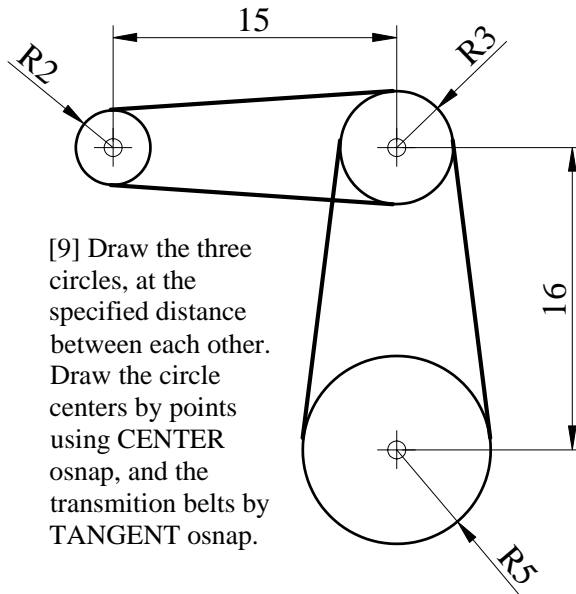
[9] Draw the three circles, at the specified distance between each other. Draw the circle centers by points using CENTER osnap, and the transmition belts by TANGENT osnap.

15

R2

R3

16

R5
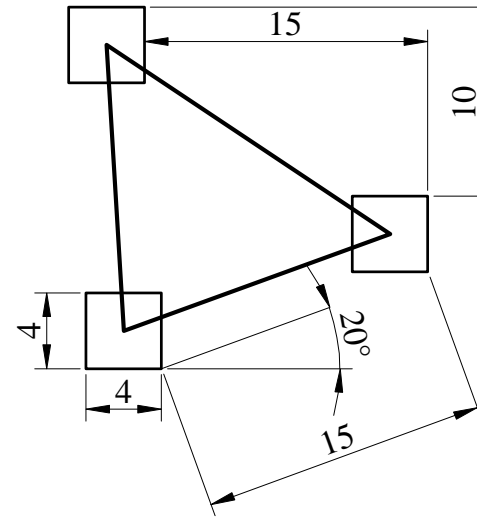
[10] Draw the three squares (RECTANGLE) at the specified distance between them, using the FROM feature.
Use OBJECT SNAP TRACKING and POINT FILTERS features to connect the square "centers".

15

10

4

4

20°

15

R2

2

2

5

R2

10

6

10
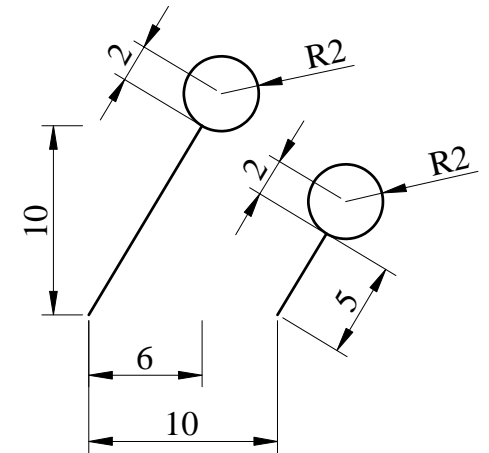
[11.a] Draw the left line.
[11.b] Draw the circle of radius 2, with its center at 2 units in the EXTENSION of the line.
[11.c] Draw the right line, PARALLEL to the existing one
[11.d] Add the circle to the top of the line as at [11.b]

[12] Practice the ZOOM command with the REALTIME, ALL, EXTENTS, WINDOEW and PREVIOUS options, as well as the PAN command.

20

3.5

3

40

3
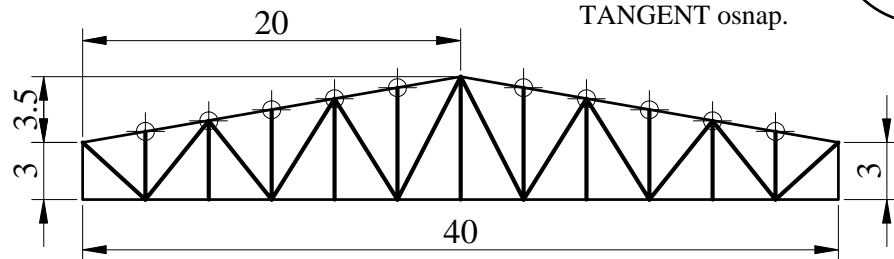
[8] Draw the truss using the DIVIDE command, as well as NODE, PERPENDICULAR and ENDPOINT osnaps.

Commands to use:
LINE, RECTANGLE, POINT, POLYGON, ELLIPSE, CIRCLE, ARC, DONUT, RAY, XLINE, QSAVE
[0.a] Save your drawing to your home directory under the name Surname_Name_L02b.dwg
[0.b] Draw a border of the drawing using construction lines (XLINE) and rays (RAY), with the corners 0,0 and 420,290
[0.c] Draw the figures [1]-[8]. Use absolute and relative, cartesian and polar coordinates, direct input of distance, ortho mode and polar tracking.

[1.a] rectangle

[1.b] point of size 5 in absolute units

(20,210)

10 20 10
40

ray

[2.a] circle (R=20)

[2.b] polygon

center at (170,240)

(300,260)

[3] polygons (edge=30)

(420,290)

ray

50

30°

(150,150)

[5.b] circle through the line endpoints

[5.a] line

30 30

90°

(330,190)

[6.a] lines at 45°

[6.b] circle of radius 15 tangent to the lines

[4.b] donut (Di=0, De=5)

[4.a] rectangle

(45,70)

10 10 10 10 10
50

60 80

10

end

40

[8.a] lines

center (270,90)

40

[8.b] arc

start

P3

50

25

P2

[7.b] arc

P1

(140,45)

50

[7.a] lines

40

[9.b] ellipse

10

30

[9.a] lines

(330,25)

[9.c] spline

construction lines

(0,0)