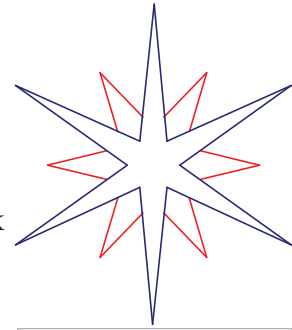

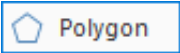



12 Point Star



A. Create Three 6 Sided Polygons.

Step 1. If necessary start a new Mastercam file, click **New**  on the Quick Access Toolbar QAT (Ctrl-N). Units **inches**.

Step 2. On the Wireframe tab **Wireframe** click **Polygon**  on **Rectangle**  drop down.

Step 3. In the Polygon function panel:
under Entity, **Fig. 1**
Sides 6
Radius 3
Rotation Angle 30
and press ENTER
Press **O** key on keyboard to select
Auto Cursor **Origin** override and press
ENTER, **Fig. 2**.

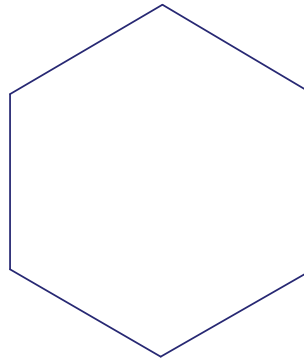


Fig. 2

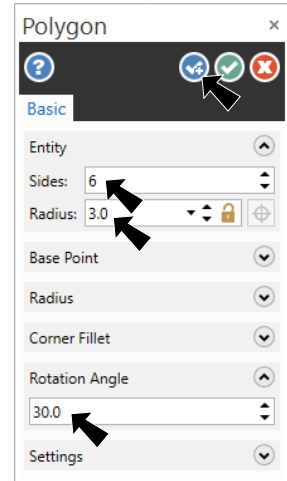



Fig. 1

Click **OK and Create New Operation**  or press ENTER to fix polygon.

Step 4. **Right click** the graphics window and click **Fit**  (Alt-F1).

Step 5. In the Polygon function panel:
under Entity, **Fig. 3**
Radius 2
Rotation Angle 0
and press ENTER
Press **O** key on keyboard to select
Auto Cursor **Origin** override and press
ENTER, **Fig. 4**.

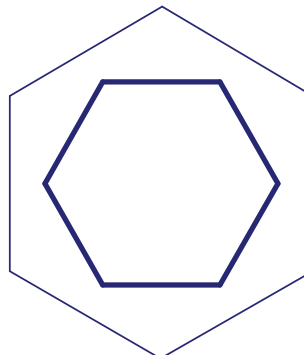


Fig. 4

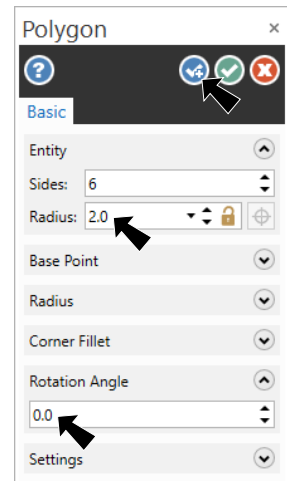


Fig. 3

Click **OK and Create New Operation**  or press ENTER to fix polygon.

Step 6. In the Polygon function panel:
under Entity, **Fig. 5**
Radius 5
and press ENTER
Press **O** key on keyboard to select
Auto Cursor **Origin** override and press
ENTER, **Fig. 6**.

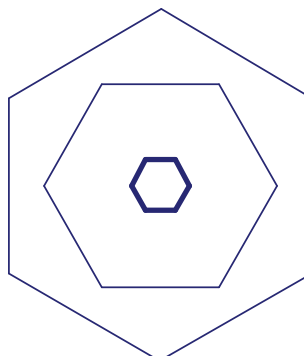


Fig. 6

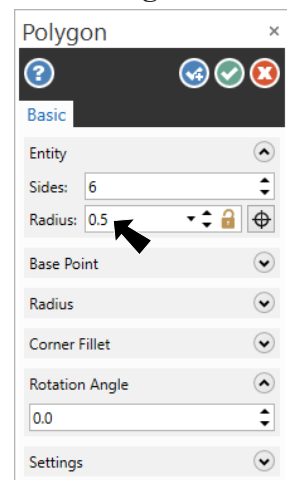


Fig. 5


Click OK .

B. Save As "12 STAR"

Step 1. Click Save As  (Ctrl-Shift-S) on the Quick Access Toolbar QAT.

Step 2. Key-in **12 STAR** for filename and press ENTER.

C. Sketch Big Points.

Step 1. On the Wireframe tab  click **Line Endpoints** .

Step 2. In the Line Endpoints function panel:
under Method, **Fig. 7**
select **Multi-line**

Sketch a line between Position 1, an endpoint of small polygon and Position 2, an endpoint on big polygon, **Fig. 8**.
Continue and sketch points of the star from small polygon to big polygon, **Fig. 9**.

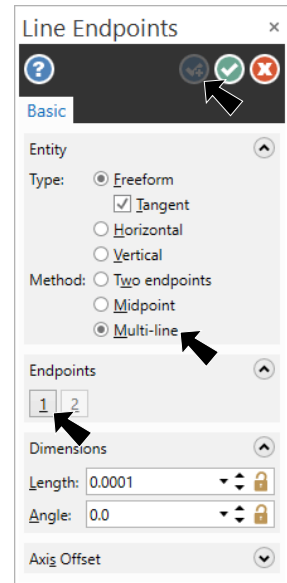




Fig. 7

D. Sketch Small Points.

Step 1. Sketch the next lines **red**. **Right click** in the graphics window and on the Mini Toolbar click **Wireframe Color**  drop down arrow, then click **red**, **Fig. 10**.


Step 2. In the Line Endpoints function panel:
under Endpoints, **Fig. 7**
select **Endpoint 1**  button to restart line.

Sketch line between Position 3, an endpoint of small polygon and Position 4, an endpoint on middle polygon, **Fig. 11**.

Continue and sketch points of star from small polygon to middle polygon, **Fig. 12**.

Select **Endpoint 1**  button to restart line and complete the lines, **Fig. 13**.

Click OK  when done.

Step 3. Save  (Ctrl-S).

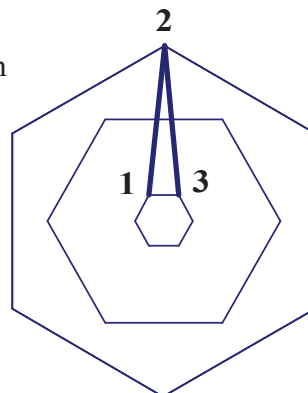


Fig. 8

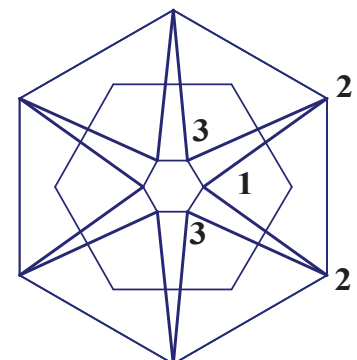


Fig. 9

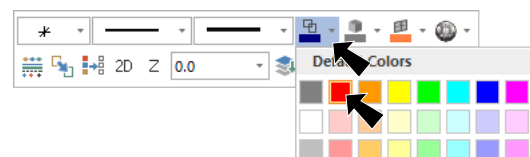


Fig. 10

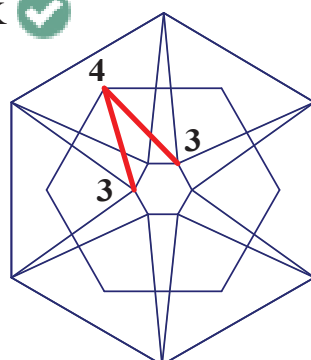


Fig. 11

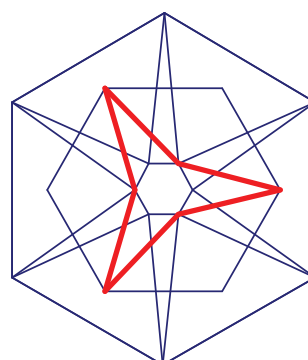


Fig. 12

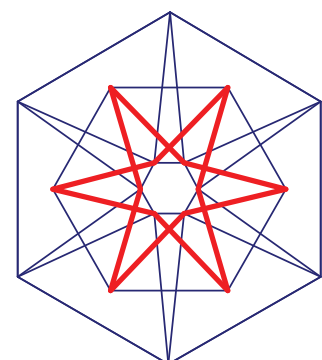


Fig. 13

E. Delete The Three Polygons.

Step 1. **Delete the three polygons.** To delete, click each line of the polygons and press Delete key on keyboard, **Fig. 14.**

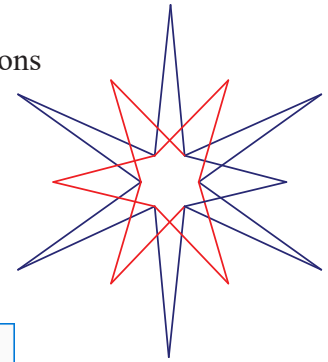
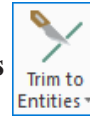


Fig. 14

F. Trim Lines.

Step 1. On the Wireframe tab click **Trim to Entities**



Step 2. In the Trim to Entities function panel:
under Method, **Fig. 15**

select **Trim 1 entity**

Trim outside red lines to blue lines.

To trim, click Position 1 on red line then, click Position 2 on blue line, **Fig. 16.**

Repeat at other red lines. That is, **click the part of line you are keeping, outside of red line, then click blue line it crosses, Fig. 17.**

Click OK  when done.

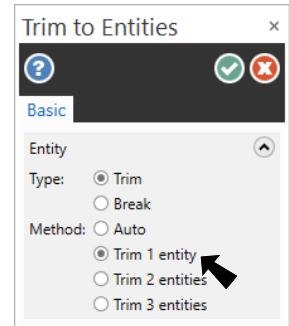


Fig. 15

Step 3. Save  (Ctrl-S).

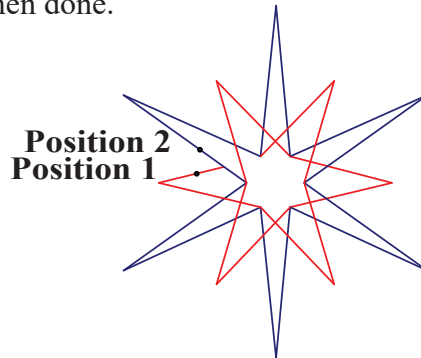


Fig. 16

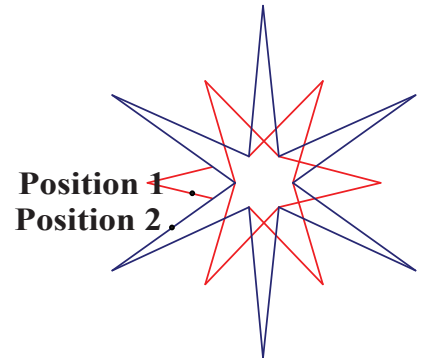


Fig. 17

**Click outside of the red line,
then click blue line**

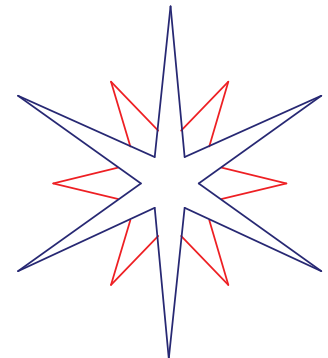


Fig. 18