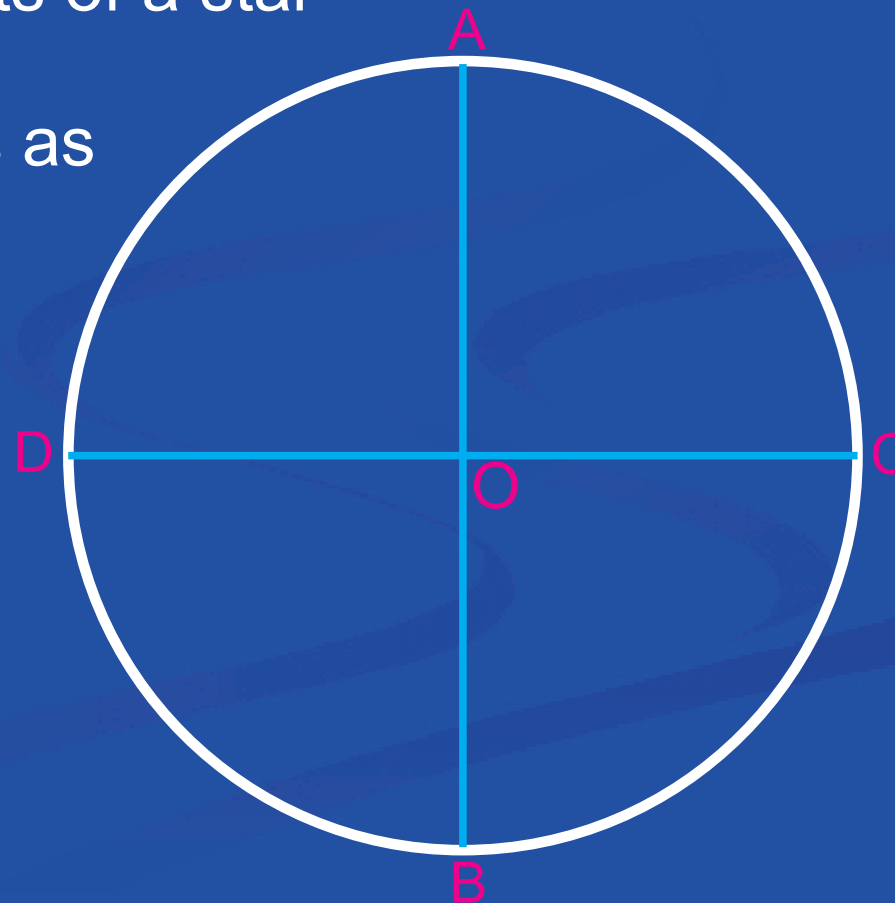


# STAR POLYGONS

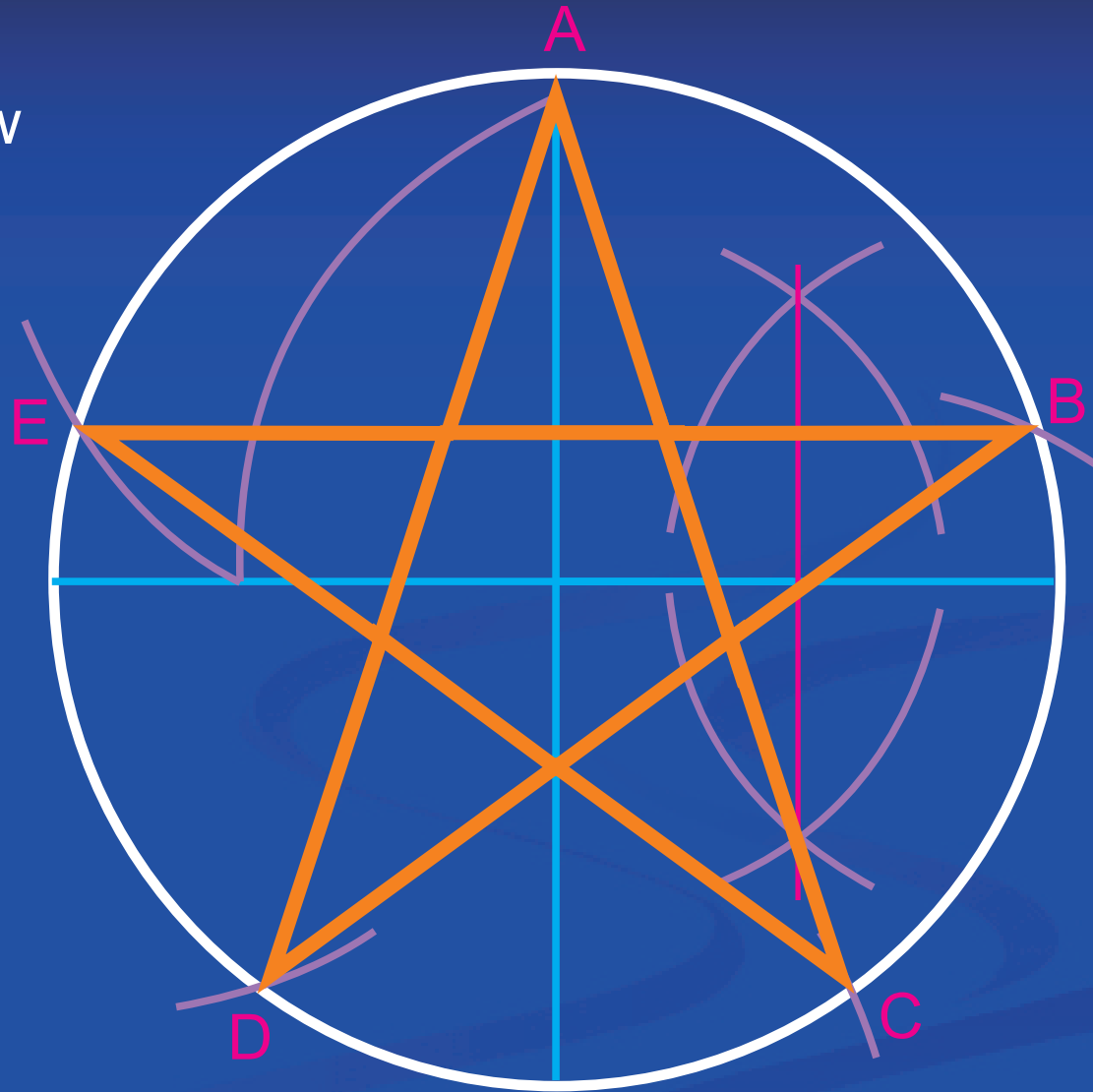
- A star-shaped polygon is formed by joining together the non-consecutive vertices in a regular polygon
- To construct a star polygon inscribed in a circumference, we need to follow the same steps to draw a regular polygon, it depends on how many points of a star we want to draw.

So we must start finding the star points as they were the polygon vertices.



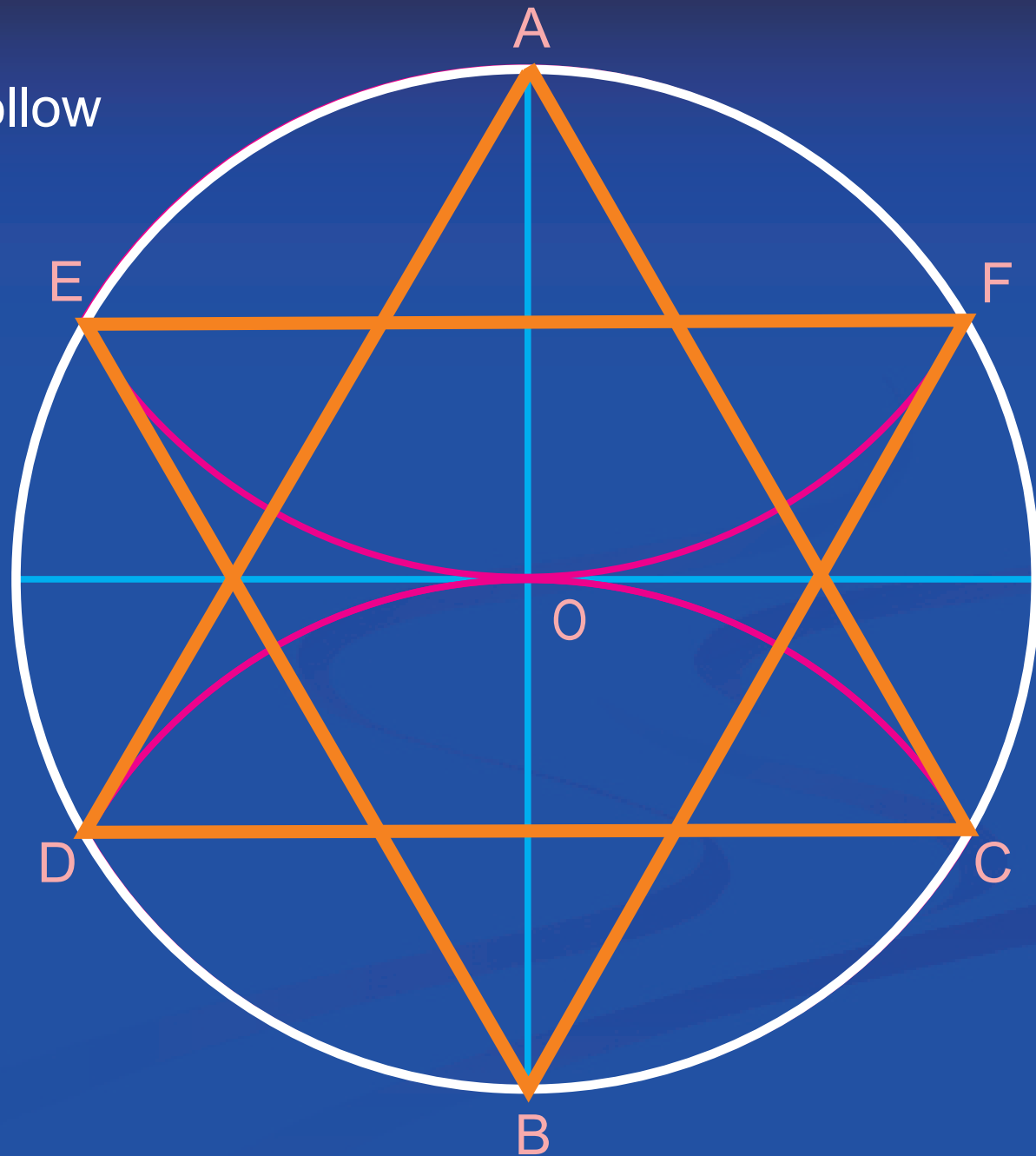
# FIVE POINTS STAR POLYGON

- Follow the same steps you follow to draw a pentagon.
- You have now points **A**, **B**, **C**, **D** and **E**
- Join the non-consecutive vertices as follows: **A-D**, **E-C**, **D-B**, **C-A** and **B-E**



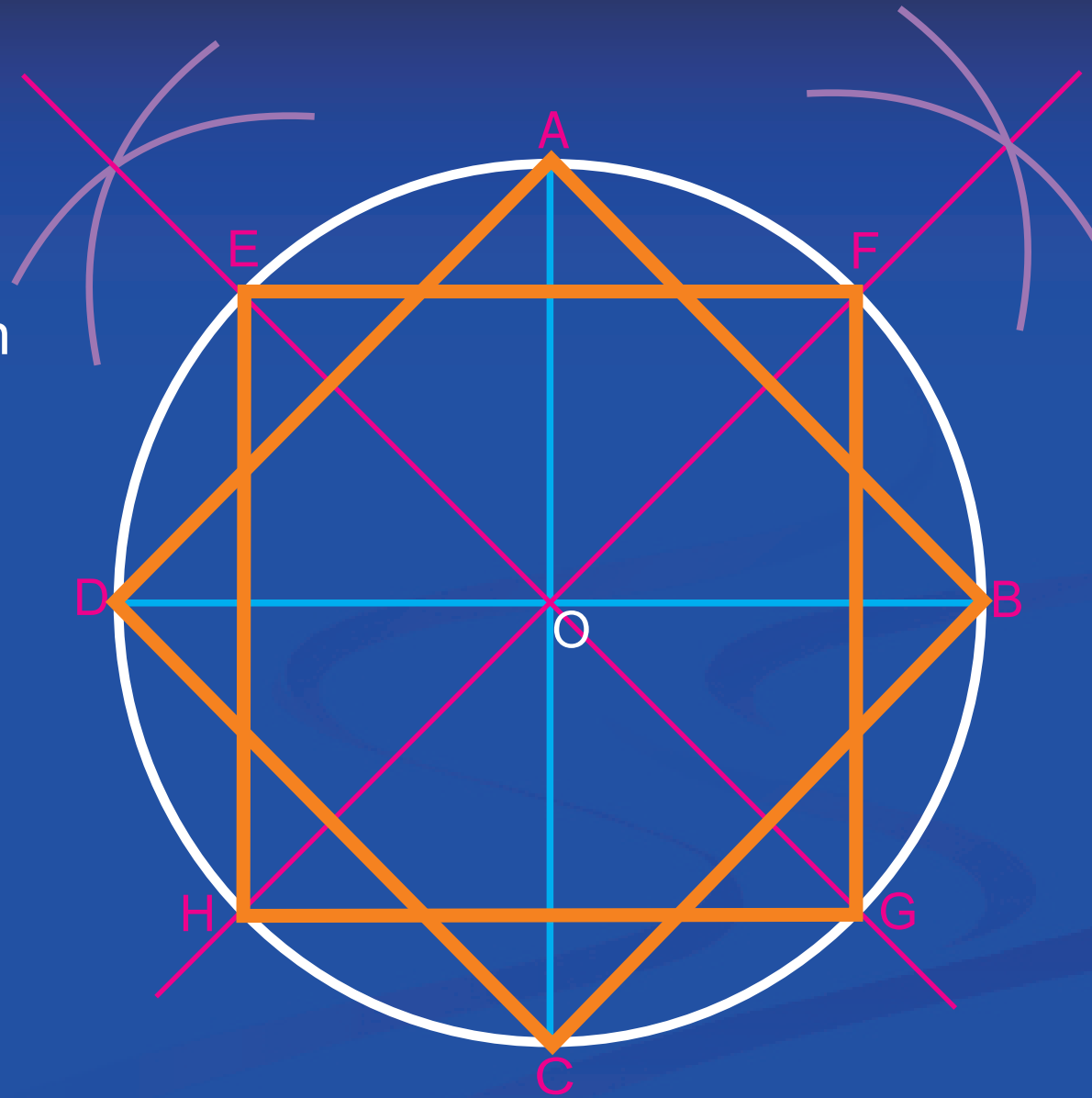
# SIX POINTS STAR POLYGON

- Follow the same steps you follow to draw an hexagon.
- You have now points  $A, F, C$ ,  $B, D$  and  $E$
- Join the non-consecutive vertices as follows:  $A-C$ ,  $C-D$ ,  $D-A$ ,  $E-F$ ,  $F-B$  and  $B-E$



# EIGHT POINTS STAR POLYGON

- After the first steps common to all regular polygons we get four right angles and points **A, B, C, D**
- Find the angle bisector of each angle. Those rays intersect the circumference at points **E, F, G** and **H**.
- Join together the non-consecutive vertices to find an eight points star polygon: **A-B, B-C, C-D, D-A** and **E-F, F-G, G-H, H-E**



# LONG EIGHT POINTS STAR POLYGON

- Follow the same steps you follow to draw an eight points star polygon.
- We'll name these points with numbers this time, to make easier the joining
- Join the  $1+3$  non-consecutive points beginning at number 1

