

$$m\angle GFE = 37.5^\circ$$

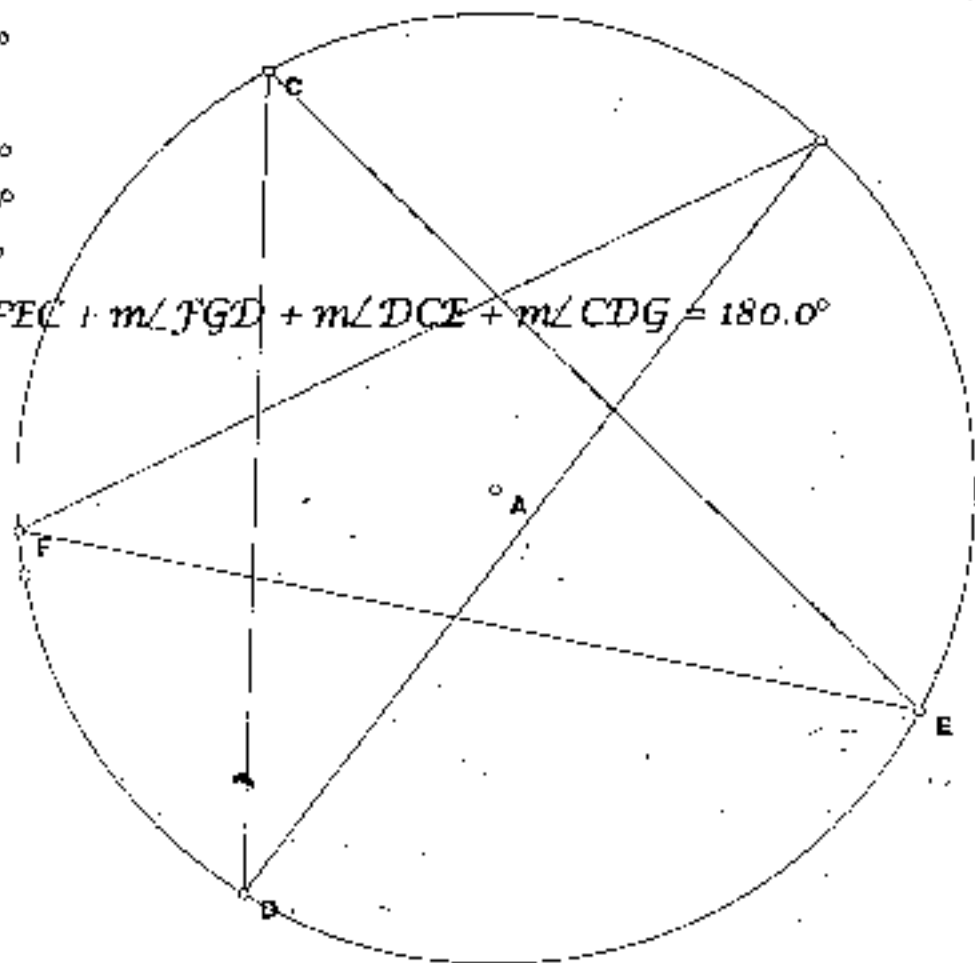
$$m\angle FEC = 33.3^\circ$$

$$m\angle FGD = 26.7^\circ$$

$$m\angle DCE = 47.0^\circ$$

$$m\angle CDG = 35.5^\circ$$

$$m\angle GFE + m\angle FEC + m\angle FGD + m\angle DCE + m\angle CDG = 180.0^\circ$$



The sum of the angles don't change when you move the points around the circle. When you change the radius of the circle the size of the circle changes and moves in and out. No matter what the size of the angles are if you have a 5 pointed star inscribed in a circle it will be 180 degrees.