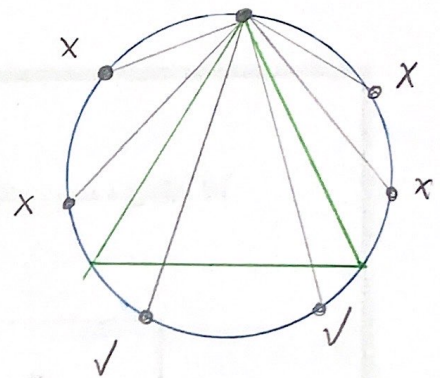


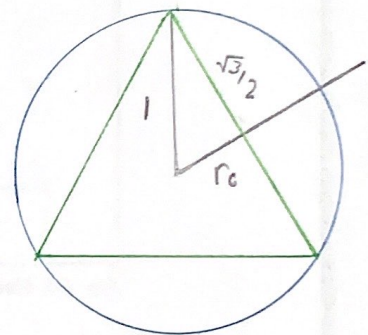
علیہ حبیبہ 99109393

$$P_1 = \frac{1}{3} \quad \left(= \frac{\frac{2\pi}{3} \times 1}{\frac{2\pi}{3} \times 3} \right)$$



$$r_c = 1 \times \sin(\pi/6) = 1/2$$

$$P_2 = \frac{1}{2}$$



$$P_3 = P(r < r_c) = \frac{\pi r_c^2}{\pi (1)^2} = \left(\frac{1}{2}\right)^2 = \frac{1}{4}$$