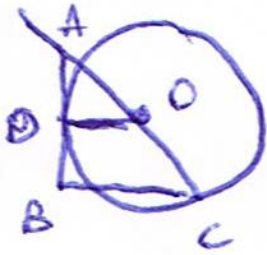


$$\frac{1.99}{5}$$



(S.S) $\triangle ADO \sim \triangle ABC$

$$\frac{AO}{AC} = \frac{DO}{BC}$$

$$\frac{5-r}{5} = \frac{r}{3}$$

$$r = \frac{15}{8}$$