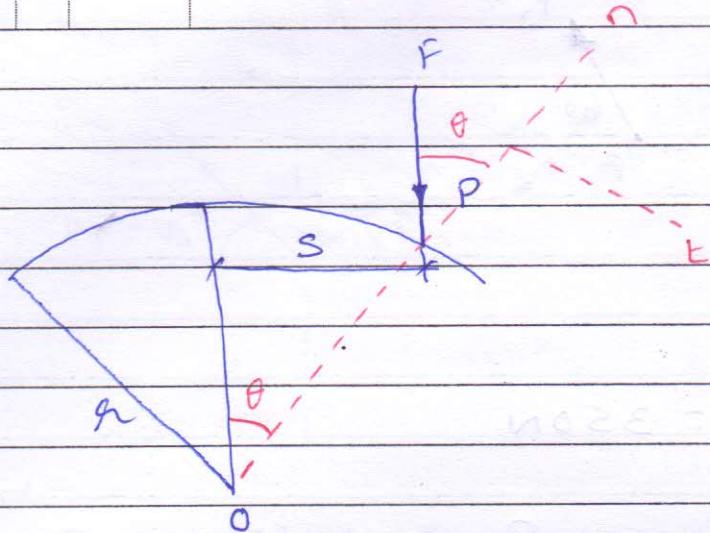


2/8



Given

$$F, n - t$$

To find
n- & t- components.

Solution

$$\sin \theta = \frac{s}{a}$$

$$OP = \sqrt{s^2 + y^2} = a \Rightarrow y = \sqrt{a^2 - s^2}$$

$$\cos \theta = \frac{y}{a}$$

$$\begin{aligned} \therefore F_n &= -F \cos \theta \\ &= -\frac{F \sqrt{a^2 - s^2}}{a} \end{aligned}$$

$$\begin{aligned} F_t &= F \sin \theta \\ &= F \times \frac{s}{a} \end{aligned}$$

$$F_t = \frac{Fs}{a}$$