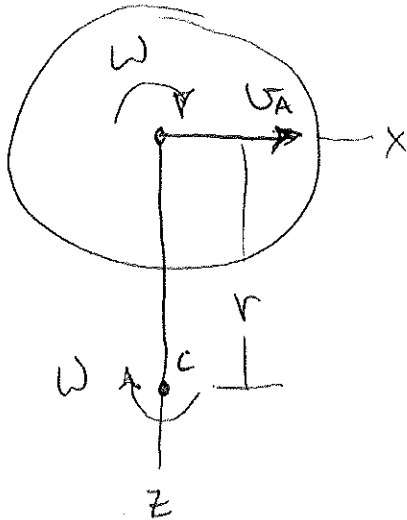


PROB. 15-74

$$V_x = \left(120 \frac{\text{MI}}{\text{HR}}\right) \left(\frac{\text{HR}}{3600 \text{ SEC}}\right) \left(\frac{5280 \text{ FT}}{\text{MI}}\right) = 176 \frac{\text{FT}}{\text{SEC}}$$

$$\omega = \left(180 \frac{\text{REV}}{\text{MIN}}\right) \left(\frac{\text{MIN}}{60 \text{ SEC}}\right) \left(\frac{2\pi}{\text{REV}}\right) = 18.85 \frac{\text{RAD}}{\text{SEC}}$$

FIND C



$$r = \frac{V_A}{\omega} = \frac{\left(176 \frac{\text{FT}}{\text{SEC}}\right)}{\left(18.85 \frac{\text{RAD}}{\text{SEC}}\right)}$$

$$r = 9.337 \text{ FT}$$