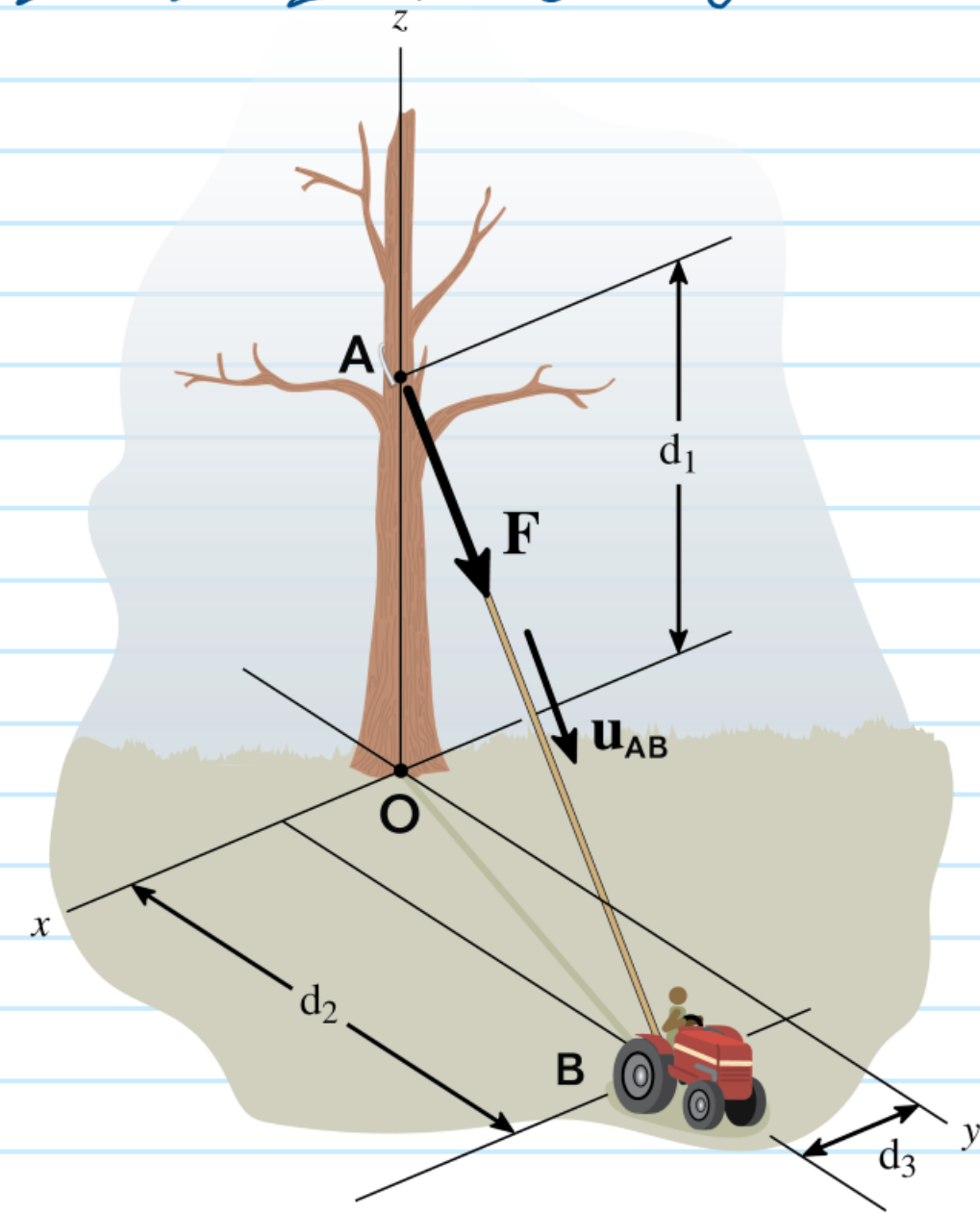


21-5-2-7-GD-001



A rope is attached between a tree and a tractor. What is the length of the rope and the components of its unit vector?

(Assume $d_1 = d_1 \text{ m}$, $d_2 = d_2 \text{ m}$ and $d_3 = d_3 \text{ m}$)

given

d_1, d_2, d_3

find

r, \vec{u}

$$r = \sqrt{d_1^2 + d_2^2 + d_3^2}$$

$$\vec{u} = \frac{\vec{r}}{r} = \frac{d_1}{r} \hat{i} + \frac{d_2}{r} \hat{j} + \frac{d_3}{r} \hat{k}$$