



Find: coefficient of kinetic friction, μ_k :

$$\sum F_x = m a_x = 0 \quad \vec{v} = \text{const} \Rightarrow \vec{a} = 0$$

$$-f_k + F_L + F_B = 0$$

$$\sum F_y = n - w = 0 \Rightarrow n = w = mg$$

and $f_k = \mu_k n = \mu_k mg$

∴ subst. into x-equ'n:

$$-\mu_k mg + F_L + F_B = 0$$

$$\therefore \mu_k = \frac{F_L + F_B}{mg} = \underline{0.25}$$