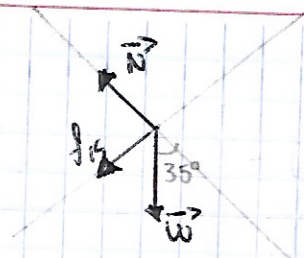


Tarea

d) b)



$$\Sigma F = ma$$

as i

$$\Sigma F_y = 0$$

$$\Sigma F_y = N - W \cos 35 = 0$$

$$\Sigma F_x = ma_x$$

$$\Sigma F_x = -f_k - W \sin 35 = ma_x$$

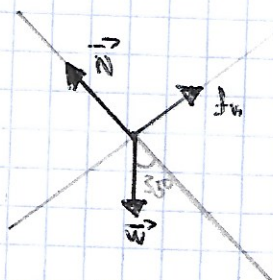
$$a_x = \frac{-f_k - W \sin 35}{m} = -f_k - g \sin 35$$

$$V_x = V_0 + a_x t$$

$$t = \frac{V_0}{a_x} = \frac{V_0}{-f_k - g \sin 35}$$

$$t = \frac{2.5}{-0.45 - (9.8) \sin 35} = \underline{0.41s}$$

c)



$$\Sigma F = ma$$

as i

$$\Sigma F_y = 0$$

$$\Sigma F_y = N - W \cos 35 = 0$$

$$\Sigma F_x = ma_x$$

$$\Sigma F_x = f_k - W \sin 35 = ma_x$$

$$a_x = \frac{f_k - W \sin 35}{m}$$

$$a_x = f_k - g \sin 35$$

$$V_x^2 = V_0^2 + 2a_x \Delta x$$

$$V_x = \sqrt{2(f_k - g \sin 35)(0.55)}$$

$$V_x = \sqrt{2(0.45 - (9.8) \sin 35) 0.55}$$

$$\underline{V_x = 2.22 \text{ m/s}}$$