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GLB

$$V_x = V_{0x} = V_0 \cos \alpha$$

$$x = V_x \cdot t$$

$$= V_0 \cos \alpha \cdot t$$

Diketik A = (H, Y)

$$\left(\frac{V_0 t \cos \alpha}{x}, \frac{V_0 t \sin \alpha - \frac{1}{2} g t^2}{y} \right)$$

$$V_A = \sqrt{V_x^2 + V_y^2}$$

$$V_A = \sqrt{(V_0 \cos \alpha)^2 + (V_0 \sin \alpha - g t)^2}$$

$$V_t = \sqrt{V_x^2 + V_y^2}$$

GLBB

$$y = V_0 y t - \frac{1}{2} g t^2$$

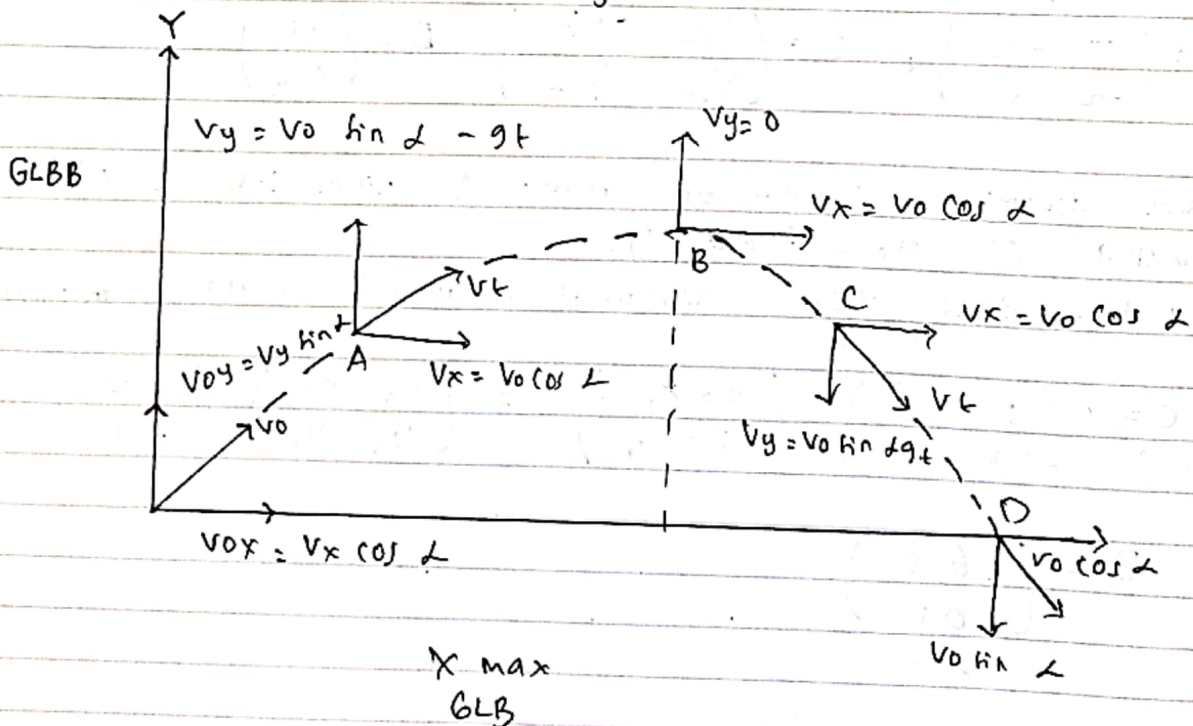
$$y_{\max} = V_0 \sin \alpha \cdot t_B - \frac{1}{2} g t_B^2$$

$$= V_0 \sin \alpha \cdot \left(\frac{V_0 \sin \alpha}{g} \right) -$$

$$\frac{1}{2} g \left(\frac{V_0 \sin \alpha}{g} \right)^2$$

$$y_{\max} = \frac{V_0^2 \sin^2 \alpha}{g} - \frac{1}{2} \frac{V_0^2 \sin^2 \alpha}{g}$$

$$= \frac{V_0^2 \sin^2 \alpha}{2g}$$



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$$V_{0x} = V_0 \cos \alpha$$

$$V_{0y} = V_0 \sin \alpha$$

Sumbu y (GLBB)

$$V_t = V_{0y} + at$$

$$0 = V_0 \sin \alpha - gt$$

$$t_{AB} = \frac{V_0 \sin \alpha}{g}$$

$$t_p = 2t_B$$

$$= \frac{2 V_0 \sin \alpha}{g}$$

Sumbu x (GLB)

$$x_{max} = V_0 \cos \alpha \cdot \frac{2 V_0 \sin \alpha}{g}$$

$$= \frac{2 V_0^2 \sin \alpha \cos \alpha}{g}$$

$$x_{max} = \frac{V_0^2 \sin 2\alpha}{g}$$