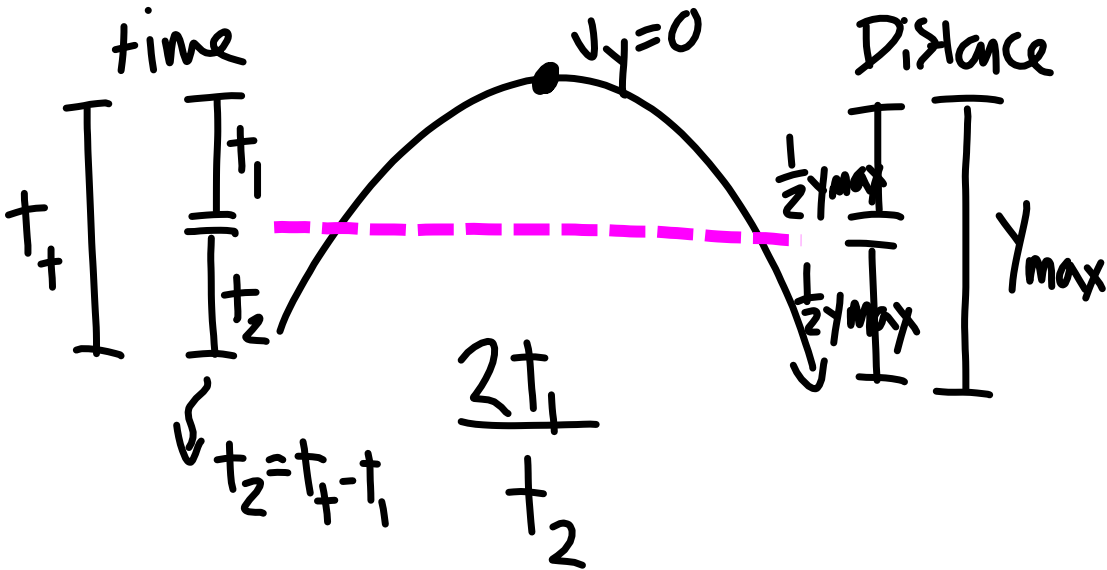




Y

From top Down

$$d = \cancel{v_i} t^{\cancel{70}} + \frac{1}{2} a t^2$$

$$\frac{Y_{\max}}{\cancel{2}} = \cancel{\frac{1}{2}} g t_i^2$$

$$Y_{\max} = g t^2$$

$$\sqrt{\frac{Y_{\max}}{g}} = t_i$$

$$d = \cancel{v_i} t^{\cancel{70}} + \frac{1}{2} a t^2$$

$$Y_{\max} = \frac{1}{2} g t^2$$

$$\sqrt{\frac{2 Y_{\max}}{g}} = t_t$$

$$\begin{aligned}
 \frac{2t_1}{t_2} &= \frac{2t_1}{t_2 = t_1 - t_1} = \frac{2\sqrt{\frac{h_{\max}}{g}}}{\sqrt{\frac{2h_{\max}}{g}} - \sqrt{\frac{h_{\max}}{g}}} \\
 &= \frac{2}{\sqrt{2} - 1} \\
 &= 4.82
 \end{aligned}$$