$$y = x\tan\theta - \frac{gx^2}{2v^2\cos^2\theta}$$

$$x^* (0.363970234266202 - 0.0554912422401579\ldots)$$

$$\tan\theta \Rightarrow \theta = \tan^{-1}(\quad) = 19.\overline{99} = 20^\circ$$

$$\frac{g}{2v^2\cos^2\theta} = \text{[illegible]}$$

$$v^2 = \frac{g}{2\cos^2\theta \cdot \text{[illegible]}} = \frac{-9.81}{2 \cdot 0.883 \cdot \text{[illegible]}}$$

$$\frac{-9.81}{-0.09799} = v^2$$

A ~~[illegible]~~

$$v^2 = 99.1828\ldots \qquad v = 9.95 \approx 10\,m/s$$