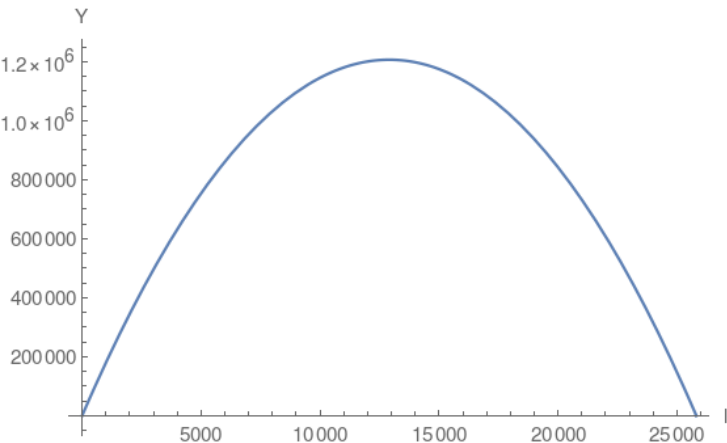


3.

3. (1) To find the MIN/MAX, first calculate the vertex:

$$\text{vertex} = \frac{-187}{2 \frac{(-16)}{47^2}} = \frac{413083}{32}$$



since the height Y of the projectile is governed by a Parabola formula.