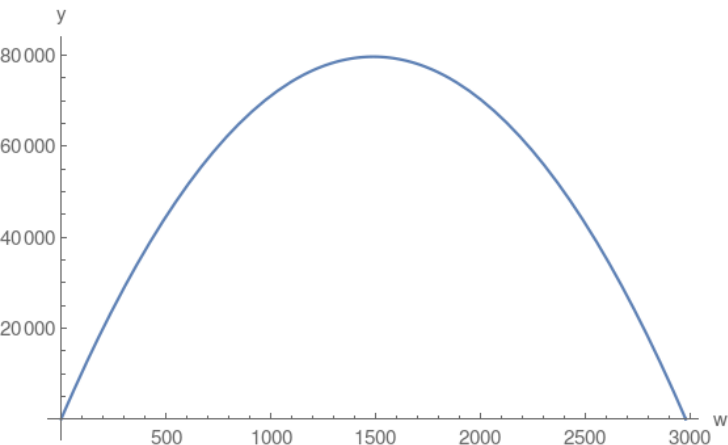


3.

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

$$\text{vertex} = \frac{-107}{2 \cdot \frac{(-19)}{23^2}} = \frac{56603}{38}$$



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