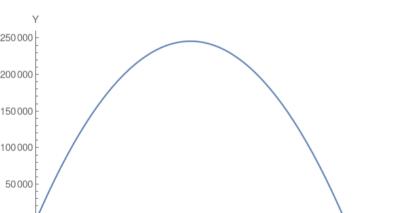
3. (a) To solve for the MIN/MAX, first calculate the vertex:

 $vertex = \frac{-176}{2\frac{(-23)}{27^2}} = \frac{64152}{23}$ 



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