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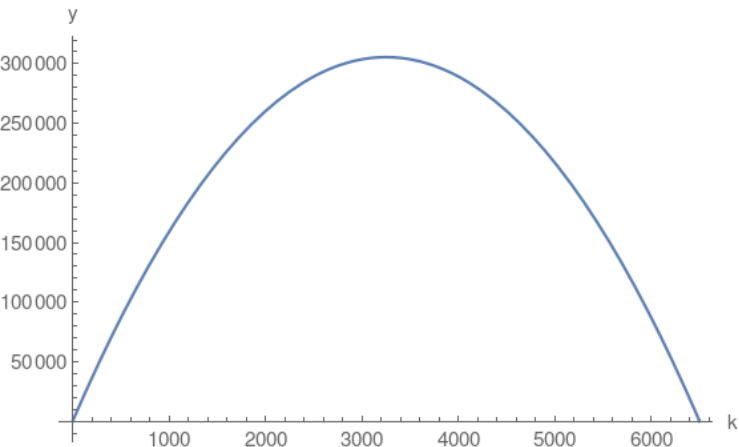
3. (1) To solve for the MIN/MAX, first calculate the vertex:

$$\text{vertex} = \frac{-188}{2\frac{(-14)}{22^2}} = \frac{22748}{7}$$

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