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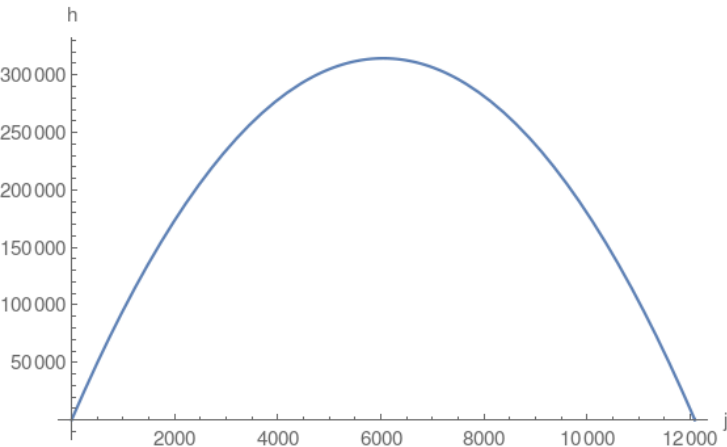
3. (a) To find the MIN/MAX, first calculate the vertex:

$$\text{vertex} = \frac{-104}{2\frac{(-19)}{47^2}} = \frac{114868}{19}$$

since the height h of the projectile is modeled by a Parabola function.