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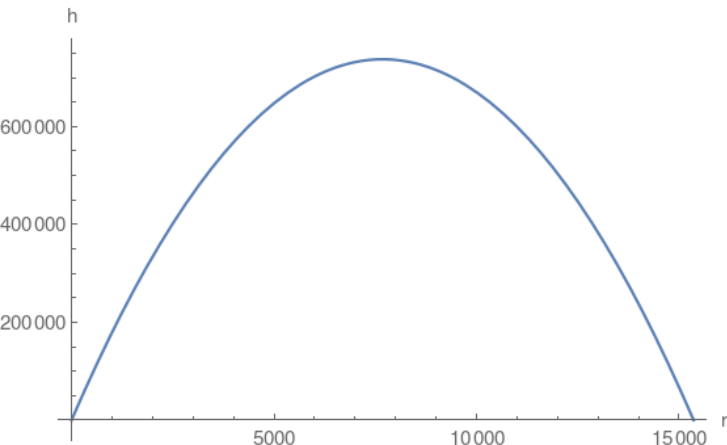
3. (a) To find the MIN/MAX, first calculate the vertex:

$$\text{vertex} = \frac{-192}{2\frac{(-20)}{40^2}} = 7680$$

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