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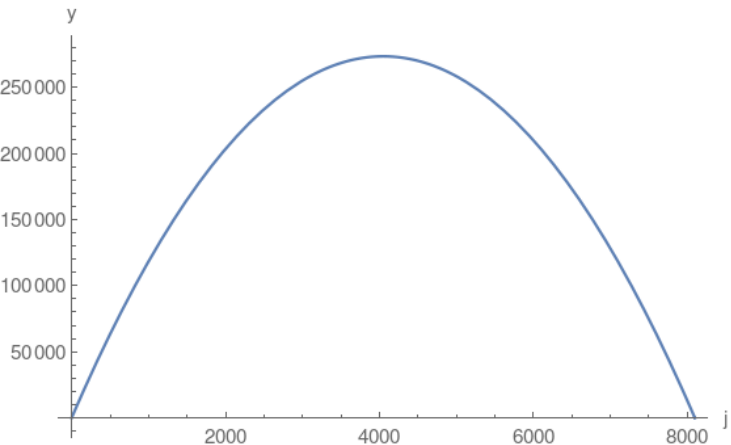
1. (A) To solve for the MIN/MAX, first calculate the vertex:

$$\text{vertex} = \frac{-135}{2\frac{(-15)}{30^2}} = 4050$$

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