

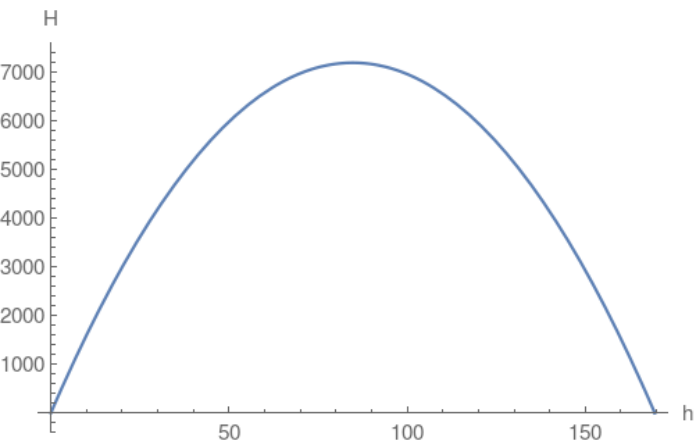
4.

4. Perimeter of rectangle = $2(h+a)=339$ where a is the length of the other edge of rectangle. Area of the rectangle is $= h \times a$.

Use perimeter equation

and solve for $a = \frac{339-2h}{2}$

Then reformulate the area $H = h \times a = \frac{339h}{2} - h^2$ which turns out to be a quadratic Parabola:



Compute the vertex $\frac{339}{4}$ and then plug the vertex into the area which will compute the maximum area.