

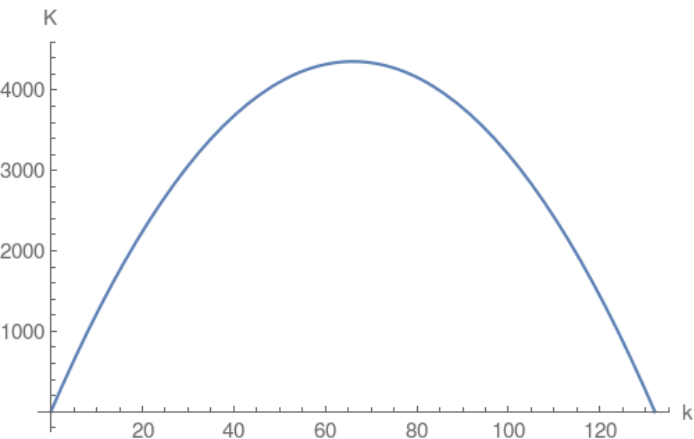
2.

2. Perimeter of rectangle =  $2(k+a)=264$  where  $a$  is the length of the other edge of rectangle. Area of the rectangle is =  $k \times a$ .

Use perimeter equation

and solve for  $a = \frac{264-2k}{2}$

Then reformulate the area  $K = k \times a = 132k - k^2$  which turns out to be a quadratic Parabola:



Compute the vertex  $\frac{264}{4}$  and then plug the vertex into the area which will compute the maximum area.