

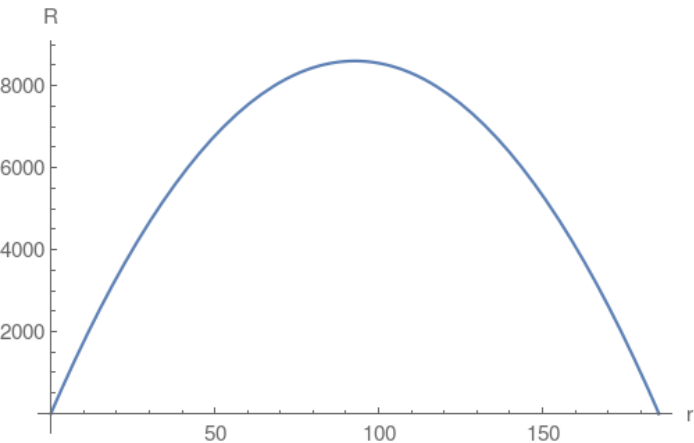
4.

4. Perimeter of rectangle = $2(r+a)=371$ where a is the length of the other edge of rectangle. Area of the rectangle is $= r \times a$.

Use perimeter equation

and solve for $a = \frac{371-2r}{2}$

Then reformulate the area $R = r \times a = \frac{371r}{2} - r^2$ which turns out to be a quadratic Parabola:



Compute the vertex $\frac{371}{4}$ and then plug the vertex into the area which will compute the maximum area.