4.
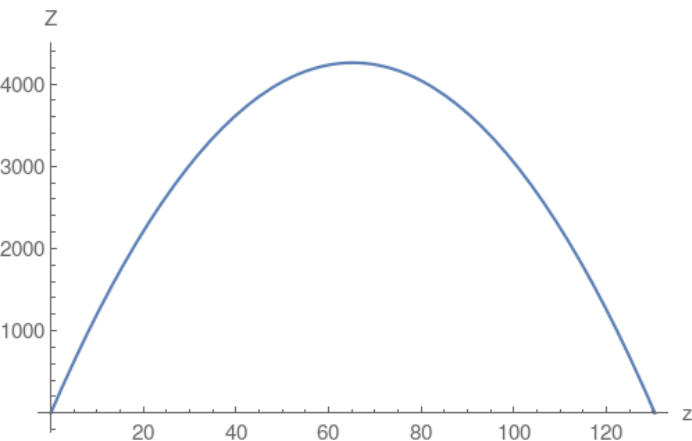
4. Perimeter of rectangle $= 2(z+a) = 261$ where a is the length of the other edge of rectangle. Area of the rectangle is $= z \times a$.

Use perimeter equation

and solve for $a = \frac{261-2z}{2}$

Then reformulate the area $Z = z \times a = \frac{261\,z}{2} - z^2$ which turns out to be a quadratic Parabola:

Compute the vertex $\frac{261}{4}$ and then plug the vertex into the area which will compute the maximum area.