3.

3. Since the fences enclose a rectangular plot without one side, two sides have length b and one side has length a:

$a+b+b=2935 \implies a=2935-2b$

the area:

$area=a \times b = (l-2b) \, b = 2935 \, b - 2 \, b^2$

Note that the function is for parabola. Now solve for the vertex:

$vertex = (\frac{2935}{4} \, m \, , \, \frac{8\,614\,225}{8} \, m^2 \,)$

Square the unit for vertex's vertical coordinate since it is a quadratic.