4.

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

$a + b + b = 2448 \implies a = 2448 - 2b$

the area:

$area = a \times b = (l - 2b)\,b = 2448\,b - 2\,b^2$

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

$vertex = (612\ m,\ 749088\ m^2)$

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