

4.

4. There are 3 sides to fence, two sides with length  $b$  and one side with length  $a$ :

$$a+b+b=3273 \Rightarrow a=3273-2b$$

Now compute the area:

$$\text{area}=a \times b = (1-2b) b = 3273 b - 2 b^2$$

Notice the Parabolic equation, compute the vertex:

$$\text{vertex} = \left( \frac{3273}{4} \text{ m} , \frac{10\,712\,529}{8} \text{ m}^2 \right)$$

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