

2.

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

$$a+b+b=3466 \implies a=3466-2b$$

the area:

$$\text{area}=a \times b = (1-2b) b = 3466 b - 2 b^2$$

Note that the equation is for parabola. Now find the vertex:

$$\text{vertex} = \left( \frac{1733}{2} \text{ m} , \frac{3003289}{2} \text{ m}^2 \right)$$

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