

3.

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

$$a+b+b=4304 \implies a=4304-2b$$

Now find the area:

$$\text{area}=a \times b = (4304-2b)b = 4304b - 2b^2$$

Notice the Parabolic equation, find the vertex:

$$\text{vertex} = (1076 \text{ meters}, 2315552 \text{ meters}^2)$$

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