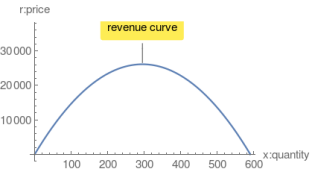


1.

1. (1) Basis for the Revenue model is a simple multiplication:

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{3}{10}x + 177\right) \times x = 177x - \frac{3x^2}{10}$$

Notice the latter is a quadratic:



(2) Domain starts at 0 RussianRubles revenue up to x-intercept coordinate equal to twice the value of vertex of the Parabola:
590

(4) The maximum occurs at the vertex x-intercept coordinate:
295

or the amount 26107.5 RussianRubles .