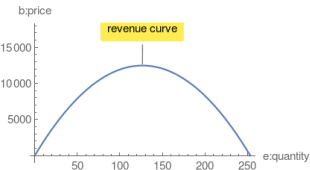


3.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{7}{9}e + 197\right) \times e = 197e - \frac{7e^2}{9}$$

Notice the latter is a quadratic:



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

$$\frac{1773}{7}$$

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

$$\frac{1773}{14}$$

or the amount 12474.3 RussianRubles .