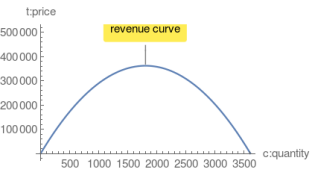


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{9}c + 401\right) \times c = 401c - \frac{c^2}{9}$$

Notice the latter is a quadratic:



(b) Domain starts at 0 RussianRubles revenue up to c-intercept coordinate equal to twice the value of vertex of the Parabola:
3609

(d) The maximum occurs at the vertex c-intercept coordinate:

$$\frac{3609}{2}$$

or the amount 361802. RussianRubles .