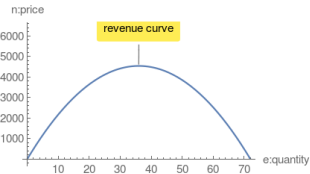


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{7}{2}e + 252\right) \times e = 252e - \frac{7e^2}{2}$$

Notice the latter is a quadratic:



(b) Domain starts at 0 RussianRubles revenue up to e-intercept coordinate equal to twice the value of vertex of the Parabola:
72

(d) The maximum occurs at the vertex e-intercept coordinate:
36
or the amount 4536. RussianRubles .