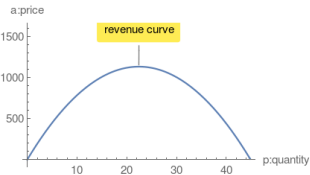


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{9}{4}p + 101\right) \times p = 101p - \frac{9p^2}{4}$$

Notice the latter is a quadratic:



(2) Domain starts at 0 RussianRubles revenue up to p-intercept coordinate equal to twice the value of vertex of the Parabola:
 $\frac{404}{9}$

(4) The maximum occurs at the vertex p-intercept coordinate:
 $\frac{202}{9}$

or the amount 1133.44 RussianRubles .