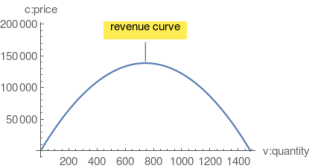


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{4}v + 372\right) \times v = 372v - \frac{v^2}{4}$$

Notice the latter is a quadratic:



(b) Domain starts at 0 RussianRubles revenue up to v-intercept coordinate equal to twice the value of vertex of the Parabola:
1488

(d) The maximum occurs at the vertex v-intercept coordinate:
744

or the amount 138384. RussianRubles .