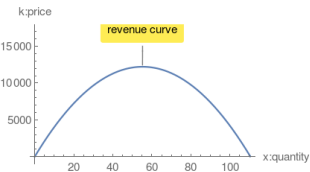


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = (-4x + 442) \times x = 442x - 4x^2$$

Notice the latter is a quadratic:



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

$\frac{221}{2}$

2

(D) The maximum occurs at the vertex x-intercept coordinate:

$\frac{221}{4}$

4

or the amount 12210.3 RussianRubles .