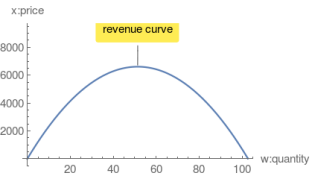


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{5}{2}w + 257\right) \times w = 257w - \frac{5w^2}{2}$$

Notice the latter is a quadratic:



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

$$\frac{514}{5}$$

(4) The maximum occurs at the vertex w-intercept coordinate:

$$\frac{257}{5}$$

or the amount 6604.9 RussianRubles .