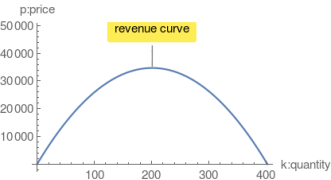


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{6}{7}k + 345\right) \times k = 345k - \frac{6k^2}{7}$$

Notice the latter is a quadratic:



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

$$\frac{805}{2}$$

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

$$\frac{805}{4}$$

or the amount 34715.6 Euros .