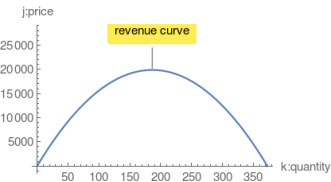


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{4}{7}k + 213\right) \times k = 213k - \frac{4k^2}{7}$$

Notice the latter is a quadratic:



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

$$\frac{1491}{4}$$

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

$$\frac{1491}{8}$$

or the amount 19848.9 Euros .