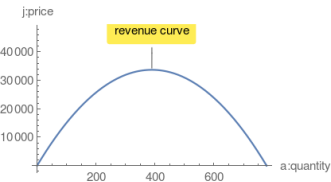


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{2}{9}a + 173\right) \times a = 173a - \frac{2a^2}{9}$$

Notice the latter is a quadratic:



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

$$\frac{1557}{2}$$

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

$$\frac{1557}{4}$$

or the amount 33670.1 Euros .