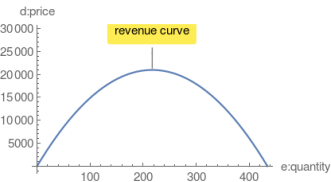


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{4}{9}e + 193\right) \times e = 193e - \frac{4e^2}{9}$$

Notice the latter is a quadratic:



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

$$\frac{1737}{4}$$

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

$$\frac{1737}{8}$$

or the amount 20952.6 Euros .