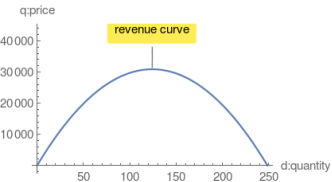


4.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = (-2d + 497) \times d = 497d - 2d^2$$

Notice the latter is a quadratic:



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

$$\frac{497}{2}$$

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

$$\frac{497}{4}$$

or the amount 30876.1 Euros .