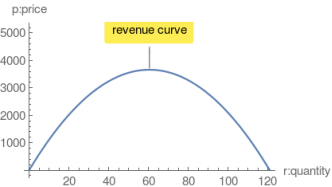


3.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = (-1r + 121) \times r = 121r - r^2$$

Notice the latter is a quadratic:



(b) Domain starts at 0 Euros revenue up to r -intercept coordinate equal to twice the value of vertex of the Parabola:
121

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

$$\frac{121}{2}$$

or the amount 3660.25 Euros .