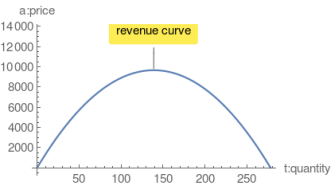


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{2}t + 139\right) \times t = 139t - \frac{t^2}{2}$$

Notice the latter is a quadratic:



(b) Domain starts at 0 Euros revenue up to t-intercept coordinate equal to twice the value of vertex of the Parabola:
278

(d) The maximum occurs at the vertex t-intercept coordinate:
139

or the amount 9660.5 Euros .