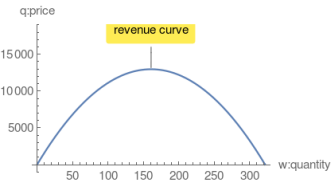


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{2}w + 161\right) \times w = 161w - \frac{w^2}{2}$$

Notice the latter is a quadratic:



(2) Domain starts at 0 Euros revenue up to w-intercept coordinate equal to twice the value of vertex of the Parabola:  
322

(4) The maximum occurs at the vertex w-intercept coordinate:  
161

or the amount 12960.5 Euros .