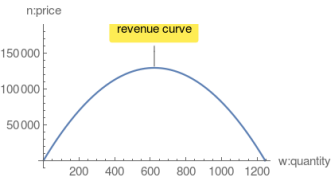


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{3}w + 415\right) \times w = 415w - \frac{w^2}{3}$$

Notice the latter is a quadratic:



(B) Domain starts at 0 Euros revenue up to w-intercept coordinate equal to twice the value of vertex of the Parabola:  
1245

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

$$\frac{1245}{2}$$

or the amount 129169. Euros .