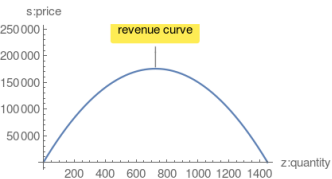


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{3}z + 484\right) \times z = 484z - \frac{z^2}{3}$$

Notice the latter is a quadratic:



(b) Domain starts at 0 Euros revenue up to z-intercept coordinate equal to twice the value of vertex of the Parabola:  
1452

(d) The maximum occurs at the vertex z-intercept coordinate:  
726

or the amount 175692. Euros .