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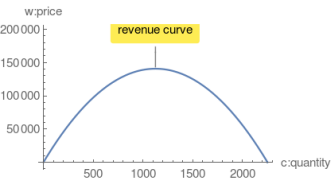
1. (a) Basis for the Revenue model is a simple multiplication:

Revenue = Price×Quantity = $\left(-\frac{1}{9}c+250\right) \times c = 250\,c - \frac{c^2}{9}$

Notice the latter is a quadratic:



(b) Domain starts at 0 Euros revenue up to c-intercept coordinate equal to twice the value of vertex of the Parabola:
2250
(d) The maximum occurs at the vertex c-intercept coordinate:
1125
or the amount 140 625. Euros .