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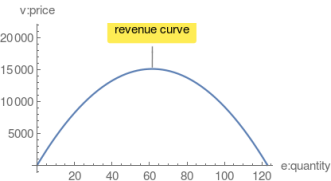
1. (a) Basis for the Revenue model is a simple multiplication:

Revenue = Price×Quantity = $(-4e+492) \times e = 492\,e - 4\,e^2$

Notice the latter is a quadratic:

(b) Domain starts at 0 Euros revenue up to e-intercept coordinate equal to twice the value of vertex of the Parabola:
123

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

$\frac{123}{2}$

or the amount 15 129. Euros .