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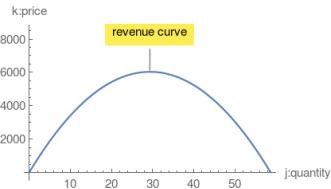
1. (1) Basis for the Revenue model is a simple multiplication:

Revenue = Price×Quantity = $(-7j+411) \times j = 411j - 7j^2$

Notice the latter is a quadratic:

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

$\frac{411}{7}$

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

$\frac{411}{14}$

or the amount 6032.89 Euros .