1.

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

Revenue = Price×Quantity = $(-\frac{4}{3}j+180) \times j = 180j - \frac{4j^2}{3}$

Notice the latter is a quadratic:
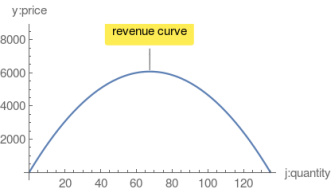
(2) Domain starts at 0 Euros revenue up to j-intercept coordinate equal to twice the value of vertex of the Parabola:
135

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

$\frac{135}{2}$

or the amount 6075. Euros .