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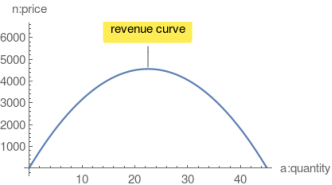
1. (1) Basis for the Revenue model is a simple multiplication:

Revenue = Price×Quantity = $(-9a+405) \times a = 405\,a - 9\,a^2$

Notice the latter is a quadratic:

(2) Domain starts at 0 Euros revenue up to a-intercept coordinate equal to twice the value of vertex of the Parabola:
45

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

$\frac{45}{2}$

or the amount 4556.25 Euros .