1.

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

Revenue = Price×Quantity = $(-\frac{4}{5}n+383) \times n = 383\,n - \frac{4\,n^2}{5}$

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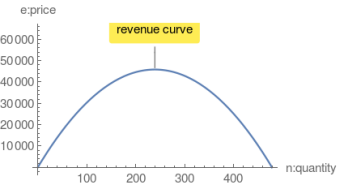
(2) Domain starts at 0 Yen revenue up to n-intercept coordinate equal to twice the value of vertex of the Parabola:

$\frac{1915}{4}$

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

$\frac{1915}{8}$

or the amount 45 840.3 Yen .