# 1.

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

Revenue = Price×Quantity = (−1p+497) × p = $497p - p^2$

Notice the latter is a quadratic:
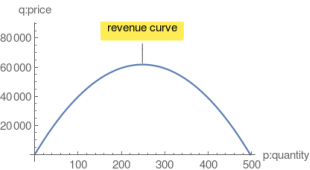


(2) Domain starts at 0 RussianRubles revenue up to p−intercept coordinate equal to twice the value of vertex of the Parabola:

497

(4) The maximum occurs at the vertex p−intercept coordinate:

$\frac{497}{2}$

or the amount 61752.3 RussianRubles .