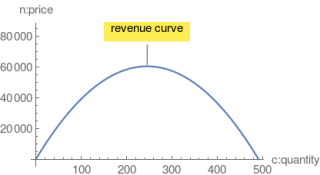


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = (-1c + 491) \times c = 491c - c^2$$

Notice the latter is a quadratic:



(2) Domain starts at 0 USDollars revenue up to c-intercept coordinate equal to twice the value of vertex of the Parabola:
491

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

$$\frac{491}{2}$$

or the amount 60270.3 USDollars .