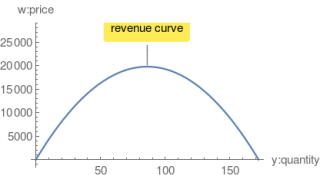


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{8}{3}y + 459\right) \times y = 459y - \frac{8y^2}{3}$$

Notice the latter is a quadratic:



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

$$\frac{1377}{8}$$

(D) The maximum occurs at the vertex y-intercept coordinate:

$$\frac{1377}{16}$$

or the amount 19751.3 USDollars .