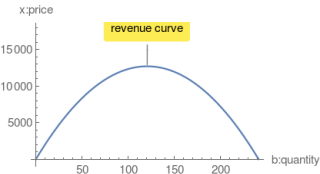


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{7}{8}b + 211\right) \times b = 211b - \frac{7b^2}{8}$$

Notice the latter is a quadratic:



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

$$\frac{1688}{7}$$

(d) The maximum occurs at the vertex b-intercept coordinate:

$$\frac{844}{7}$$

or the amount 12720.3 USDollars .