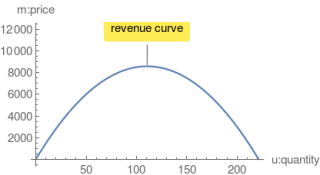


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{7}{10}u + 155\right) \times u = 155u - \frac{7u^2}{10}$$

Notice the latter is a quadratic:



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

$$\frac{1550}{7}$$

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

$$\frac{775}{7}$$

or the amount 8580.35 USDollars .