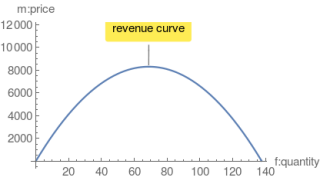


4.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{7}{4}f + 241\right) \times f = 241f - \frac{7f^2}{4}$$

Notice the latter is a quadratic:



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

$$\frac{964}{7}$$

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

$$\frac{482}{7}$$

or the amount 8297.28 USDollars .