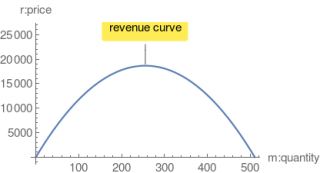


3.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{2}{7}m + 146\right) \times m = 146m - \frac{2m^2}{7}$$

Notice the latter is a quadratic:



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

511

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

$\frac{511}{2}$

or the amount 18651.5 USDollars .