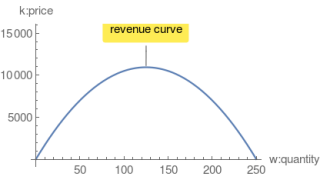


3.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{7}{10}w + 175\right) \times w = 175w - \frac{7w^2}{10}$$

Notice the latter is a quadratic:



(2) Domain starts at 0 USDollars revenue up to w-intercept coordinate equal to twice the value of vertex of the Parabola:
250

(4) The maximum occurs at the vertex w-intercept coordinate:
125
or the amount 10937.5 USDollars .