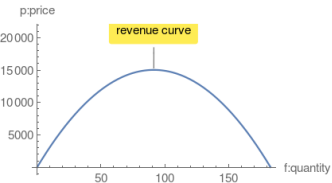


3.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{9}{5}f + 329\right) \times f = 329f - \frac{9f^2}{5}$$

Notice the latter is a quadratic:



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

$$\frac{1645}{9}$$

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

$$\frac{1645}{18}$$

or the amount 15033.5 Euros .