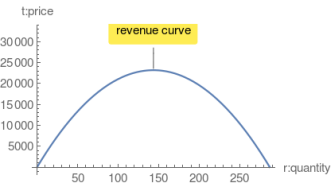


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{9}{8}r + 323\right) \times r = 323r - \frac{9r^2}{8}$$

Notice the latter is a quadratic:



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

$$\frac{2584}{9}$$

(D) The maximum occurs at the vertex r -intercept coordinate:

$$\frac{1292}{9}$$

or the amount 23184.2 Euros .