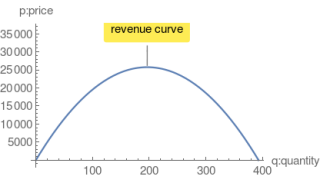


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{2}{3}q + 262\right) \times q = 262q - \frac{2q^2}{3}$$

Notice the latter is a quadratic:



(B) Domain starts at 0 USDollars revenue up to q-intercept coordinate equal to twice the value of vertex of the Parabola:  
393

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

$\frac{393}{2}$

or the amount 25741.5 USDollars .