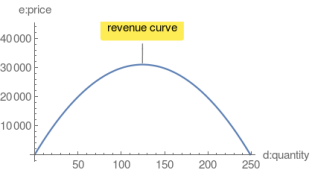


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = (-2d + 498) \times d = 498d - 2d^2$$

Notice the latter is a quadratic:



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

249

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

$\frac{249}{2}$

or the amount 31000.5 BritishPounds .