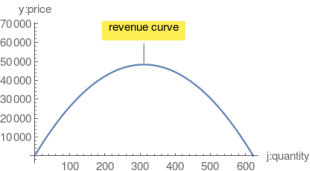


1.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{2}j + 311\right) \times j = 311j - \frac{j^2}{2}$$

Notice the latter is a quadratic:



(b) Domain starts at 0 BritishPounds revenue up to j-intercept coordinate equal to twice the value of vertex of the Parabola:  
622

(d) The maximum occurs at the vertex j-intercept coordinate:  
311

or the amount 48360.5 BritishPounds .