1.

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

Revenue = Price×Quantity = $(-\frac{8}{9}c+216) \times c = 216\,c - \frac{8\,c^2}{9}$

Notice the latter is a quadratic:
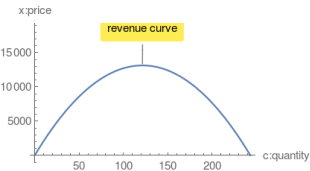
(2) Domain starts at 0 BritishPounds revenue up to c-intercept coordinate equal to twice the value of vertex of the Parabola: 243

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

$\frac{243}{2}$

or the amount 13122. BritishPounds .