1.

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

Revenue = Price×Quantity = $(-\frac{4}{3}a+244) \times a = 244\,a - \frac{4\,a^2}{3}$

Notice the latter is a quadratic:
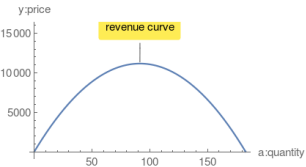
(2) Domain starts at 0 CanadianDollars revenue up to a-intercept coordinate equal to twice the value of vertex of the Parabola:
183

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

$\frac{183}{2}$

or the amount 11163. CanadianDollars .