4.

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

Revenue = Price×Quantity = $(-\frac{1}{4}n+464)$ × n = $464\,n - \frac{n^2}{4}$

Notice the latter is a quadratic:
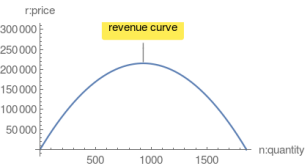
(b) Domain starts at 0 CanadianDollars revenue up to n-intercept coordinate equal to twice the value of vertex of the Parabola: 1856

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

928

or the amount 215296. CanadianDollars .