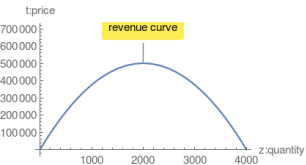


2.

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

$$\text{Revenue} = \text{Price} \times \text{Quantity} = \left(-\frac{1}{8}z + 500\right) \times z = 500z - \frac{z^2}{8}$$

Notice the latter is a quadratic:



(2) Domain starts at 0 CanadianDollars revenue up to z-intercept coordinate equal to twice the value of vertex of the Parabola:
4000

(4) The maximum occurs at the vertex z-intercept coordinate:
2000

or the amount 500000. CanadianDollars .