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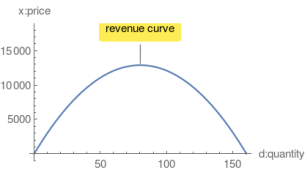
1. (1) Basis for the Revenue model is a simple multiplication:

Revenue = Price×Quantity = $(-2d+321) \times d = 321\,d - 2\,d^2$

Notice the latter is a quadratic:

x:price

revenue curve

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

$\frac{321}{2}$

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

$\frac{321}{4}$

or the amount 12 880.1 CanadianDollars .