1.

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

Revenue = Price×Quantity = $(-\frac{8}{5}s+413) \times s = 413s - \frac{8s^2}{5}$

Notice the latter is a quadratic:
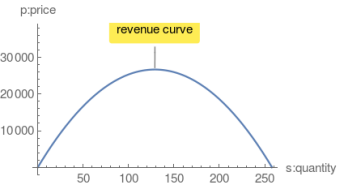
(B) Domain starts at 0 Yen revenue up to s−intercept coordinate equal to twice the value of vertex of the Parabola:

$\frac{2065}{8}$

(D) The maximum occurs at the vertex s−intercept coordinate:

$\frac{2065}{16}$

or the amount 26651.4 Yen .