1.

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

Revenue = Price×Quantity = $(-\frac{10}{7}b+468)$ × b = $468\,b - \frac{10\,b^2}{7}$

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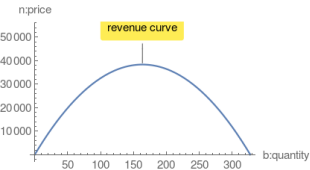
(2) Domain starts at 0 RussianRubles revenue up to b-intercept coordinate equal to twice the value of vertex of the Parabola:

$\frac{1638}{5}$

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

$\frac{819}{5}$

or the amount 38329.2 RussianRubles .