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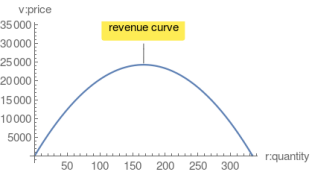
1. (1) Basis for the Revenue model is a simple multiplication:

Revenue = Price×Quantity = $\left(-\frac{7}{8}r+292\right) \times r = 292\,r - \frac{7\,r^2}{8}$

Notice the latter is a quadratic:

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

$\frac{2336}{7}$

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

$\frac{1168}{7}$

or the amount 24361.1 RussianRubles .