Problem 3

We define a region given by (u, v) where $0 \leq u \leq \sqrt{PDF(v/u)}$

Bounds on v as given by:

$v\_min = min(x * PDF(x))$ → what I did in my code

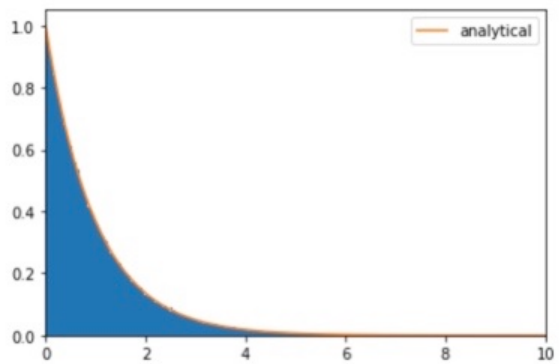
$V\_max = max(x * PDF(x))$

This yielded, $v\_min = 2.67 \times 10^{-109}$

$V\_max = 1$

Efficiency for this method was ~50% efficient.

Graph 1: Histograph of deviates compared to exponential.



From graph 1, we see that this still produces the correct answer.