

265. For a warranty product you are given:

- (i) Paid losses follow the lognormal distribution with $\mu = 13.294$ and $\sigma = 0.494$.
- (ii) The ratio of estimated unpaid losses to paid losses, y , is modeled by

$$y = 0.801x^{0.851}e^{-0.747x}$$

where

$$x = 2006 - \text{contract purchase year}$$

The inversion method is used to simulate four paid losses with the following four uniform (0,1) random numbers:

0.2877 0.1210 0.8238 0.6179

Using the simulated values, calculate the empirical estimate of the average unpaid losses for purchase year 2005.

- (A) Less than 300,000
- (B) At least 300,000, but less than 400,000
- (C) At least 400,000, but less than 500,000
- (D) At least 500,000, but less than 600,000
- (E) At least 600,000