

Question #100

Key: C

Model Solution:

Limited expected value =

$$\int_0^{1000} (1 - F(x)) dx = \int_0^{1000} (0.8e^{-0.02x} + 0.2e^{-0.001x}) dx = \left(-40e^{-0.02x} - 200e^{-0.001x} \right) \Big|_0^{1000} = 40 + 126.4$$
$$= 166.4$$