

**260.** You are given:

- (i) Claim sizes follow an exponential distribution with mean  $\theta$ .
- (ii) For 80% of the policies,  $\theta = 8$ .
- (iii) For 20% of the policies,  $\theta = 2$ .

A randomly selected policy had one claim in Year 1 of size 5.

Calculate the Bayesian expected claim size for this policy in Year 2.

- (A) Less than 5.8
- (B) At least 5.8, but less than 6.2
- (C) At least 6.2, but less than 6.6
- (D) At least 6.6, but less than 7.0
- (E) At least 7.0