

27. You are given:

- (i) X_{partial} = pure premium calculated from partially credible data
- (ii) $\mu = E[X_{\text{partial}}]$
- (iii) Fluctuations are limited to $\pm k \mu$ of the mean with probability P
- (iv) Z = credibility factor

Which of the following is equal to P ?

- (A) $\Pr[\mu - k\mu \leq X_{\text{partial}} \leq \mu + k\mu]$
- (B) $\Pr[Z\mu - k \leq ZX_{\text{partial}} \leq Z\mu + k]$
- (C) $\Pr[Z\mu - \mu \leq ZX_{\text{partial}} \leq Z\mu + \mu]$
- (D) $\Pr[1 - k \leq ZX_{\text{partial}} + (1 - Z)\mu \leq 1 + k]$
- (E) $\Pr[\mu - k\mu \leq ZX_{\text{partial}} + (1 - Z)\mu \leq \mu + k\mu]$