

39. Solution: E

Let X be the number of hurricanes over the 20-year period. The conditions of the problem give x is a binomial distribution with $n = 20$ and $p = 0.05$. It follows that

$$\begin{aligned} P[X < 2] &= (0.95)^{20}(0.05)^0 + 20(0.95)^{19}(0.05) + 190(0.95)^{18}(0.05)^2 \\ &= 0.358 + 0.377 + 0.189 = 0.925 . \end{aligned}$$