

24. The number of injury claims per month is modeled by a random variable N with

$$P[N = n] = \frac{1}{(n + 1)(n + 2)}, \text{ where } n \geq 0.$$

Determine the probability of at least one claim during a particular month, given that there have been at most four claims during that month.

- (A) $\frac{1}{3}$
- (B) $\frac{2}{5}$
- (C) $\frac{1}{2}$
- (D) $\frac{3}{5}$
- (E) $\frac{5}{6}$