

We perform an experiment such that for each positive integer n , the number n is produced with probability 2^{-n} . A random variable X then converts the outcome n into the fraction $\frac{1}{2n-5}$. What is the probability that $\frac{3X}{X^2+1}$ times $X^4 + 2X^2 + e^X$ is positive ?

- (a) $1/4$
- (b) $3/4$
- (c) $1/8$
- (d) $7/8$
- (e) $1/3$
- (f) $2/3$
- (g) $1/2$
- (h) $1/6$
- (i) $5/6$
- (j) 1
- (k) 0
- (l) None of these