

Suppose a sample space consists of all positive integers, and for each positive integer n , the event $\{n\}$ has probability 2^{-n} . How many different events in the sample space have probability equal to $1/2$?

- (a) 2
- (b) 1
- (c) 0
- (d) 3
- (e) 4
- (f) 5
- (g) 6
- (h) 8
- (i) 16
- (j) An infinite number of events
- (k) 32
- (l) 64
- (m) None of these