

- 30.** You are given the following about 100 insurance policies in a study of time to policy surrender:
- (i) The study was designed in such a way that for every policy that was surrendered, a new policy was added, meaning that the risk set,  $r_j$ , is always equal to 100.
  - (ii) Policies are surrendered only at the end of a policy year.
  - (iii) The number of policies surrendered at the end of each policy year was observed to be:
    - 1 at the end of the 1<sup>st</sup> policy year
    - 2 at the end of the 2<sup>nd</sup> policy year
    - 3 at the end of the 3<sup>rd</sup> policy year
    - ⋮
    - $n$  at the end of the  $n^{\text{th}}$  policy year
  - (iv) The Nelson-Aalen empirical estimate of the cumulative distribution function at time  $n$ ,  $\hat{F}(n)$ , is 0.542.

What is the value of  $n$ ?

- (A) 8
- (B) 9
- (C) 10
- (D) 11
- (E) 12