

88. A towing company provides all towing services to members of the City Automobile Club.

You are given:

Towing Distance	Towing Cost	Frequency
0-9.99 miles	80	50%
10-29.99 miles	100	40%
30+ miles	160	10%

- (i) The automobile owner must pay 10% of the cost and the remainder is paid by the City Automobile Club.
- (ii) The number of towings has a Poisson distribution with mean of 1000 per year.
- (iii) The number of towings and the costs of individual towings are all mutually independent.

Using the normal approximation for the distribution of aggregate towing costs, calculate the probability that the City Automobile Club pays more than 90,000 in any given year.

- (A) 3%
- (B) 10%
- (C) 50%
- (D) 90%
- (E) 97%