

**170.** In a certain town the number of common colds an individual will get in a year follows a Poisson distribution that depends on the individual's age and smoking status. The distribution of the population and the mean number of colds are as follows:

	Proportion of population	Mean number of colds
Children	0.30	3
Adult Non-Smokers	0.60	1
Adult Smokers	0.10	4

Calculate the conditional probability that a person with exactly 3 common colds in a year is an adult smoker.

- (A) 0.12
- (B) 0.16
- (C) 0.20
- (D) 0.24
- (E) 0.28