DISCRETE RANDOM VARIABLES: PRACTICE 3; POISSON DISTRIBUTION

STUDENT LEARNING OBJECTIVES:

- **THE STUDENT WILL INVESTIGATE THE PROPERTIES OF A POISSON DISTRIBUTION.**

GIVEN:

On average, ten teens are killed in the U.S. in teen-driven autos per day (USA Today, 3/1/2005). As a result, states across the country are debating raising the driving age.

INTERPRET THE DATA

1. In words, define the Random Variable X.

2. X ~ _____

3. X takes on the values: _____

4. For the given values of X, fill in the corresponding probabilities.

x	P(X=x)
0	
4	
8	
10	
11	
15	

5. Is it likely that there will be no teens killed in the U.S. in teen-driven autos on any given day? _____ Numerically, why?

6. Is it likely that there will be more than 20 teens killed in the U.S. in teen-driven autos on any given day? _____ Numerically, why?