1. Typographical and spelling errors can be either “nonword errors” or “word errors.” A nonword error is not a real word, as when “the” is typed as “teh.” A word error is a real word, but not the right word, as when “lose” is typed as “loose.” When undergraduates are asked to write a 250 word essay (without spell checking), the number of nonword errors has the following distribution:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Errors | 0 | 1 | 2 | 3 | 4 |
| Probability | .1 | .3 | .3 | .2 | .1 |

The number of word errors has this distribution:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Errors | 0 | 1 | 2 | 3 |
| Probability | .4 | .3 | .2 | .1 |

What are the mean numbers of nonword errors and word errors in an essay?

1. In exercise 4.50 you examined the probability distribution for the number of aces when you are dealt two cards in the game of Texas hold’em. Let X represent the number of aces in a randomly selected deal of two cards in this game. Here is the probability distribution for the random variable X:

|  |  |  |  |
| --- | --- | --- | --- |
| Value of X | 0 | 1 | 2 |
| Probability | .559 | .382 | .059 |

Find, the mean of the probability distribution of X.

3. A six-sided die has four green and two red faces, all equally probable. Psychologists asked students to say which of these color sequences is most likely to come up at the beginning of a long set of rolls of this die:   
RGRRR   
RGRRRG   
GRRRRR   
More than 60% chose the second sequence. What is the correct probability of each sequence?