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## Discrete Probability Distribution: Ichiro's Hit Parade

In the 2004 baseball season, Ichiro Suzuki of the Seattle Mariners set the record for the most hits in a season with 262 hits. In the following probability distribution, the random variable represents the number of hits Ichiro obtained in a game.

| $\boldsymbol{X}$ | $\boldsymbol{P}(\boldsymbol{X})$ |
| :--- | :--- |
| 0 | 0.1677 |
| 1 | 0.3354 |
| 2 | 0.2857 |
| 3 | 0.1491 |
| 4 | 0.0373 |
| 5 | 0.0248 |

a. Verify this is a discrete probability distribution
b. Draw a probability histogram, be sure to label your axes.

c. Compute the mean (the expected value) of the random variable and interpret in a complete sentence the mean of the distribution.
d. What is the probability that in a randomly selected game Ichiro got two hits?
e. What is the probability that in a randomly selected game Ichiro got more than one hit? At least three hits?

