

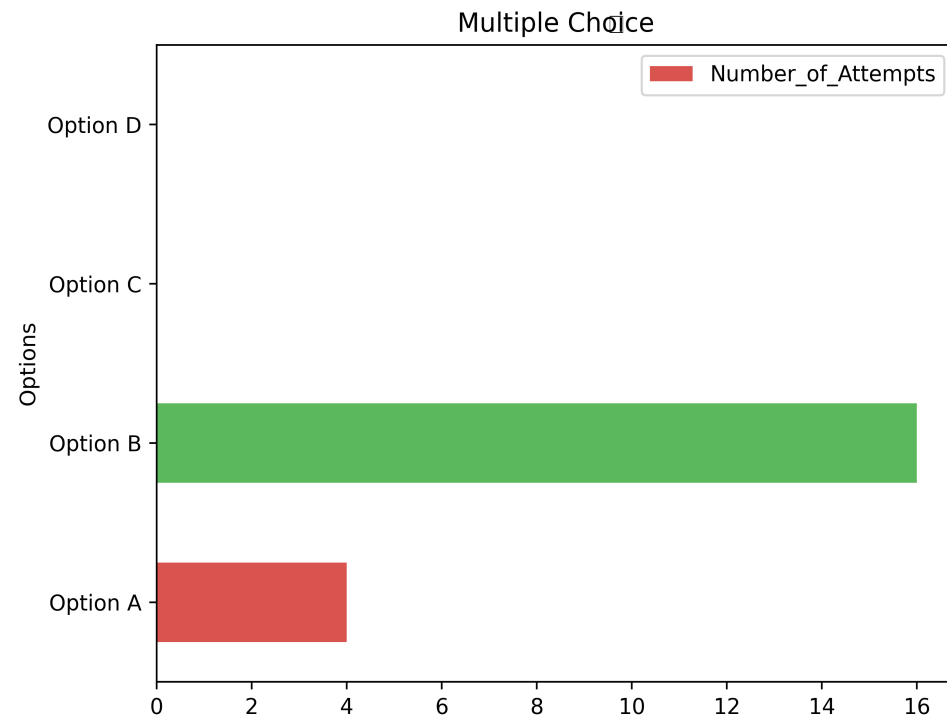
# LearnLab Summer School

## Analyzing OLI Data

# Item Analysis (MCQs)

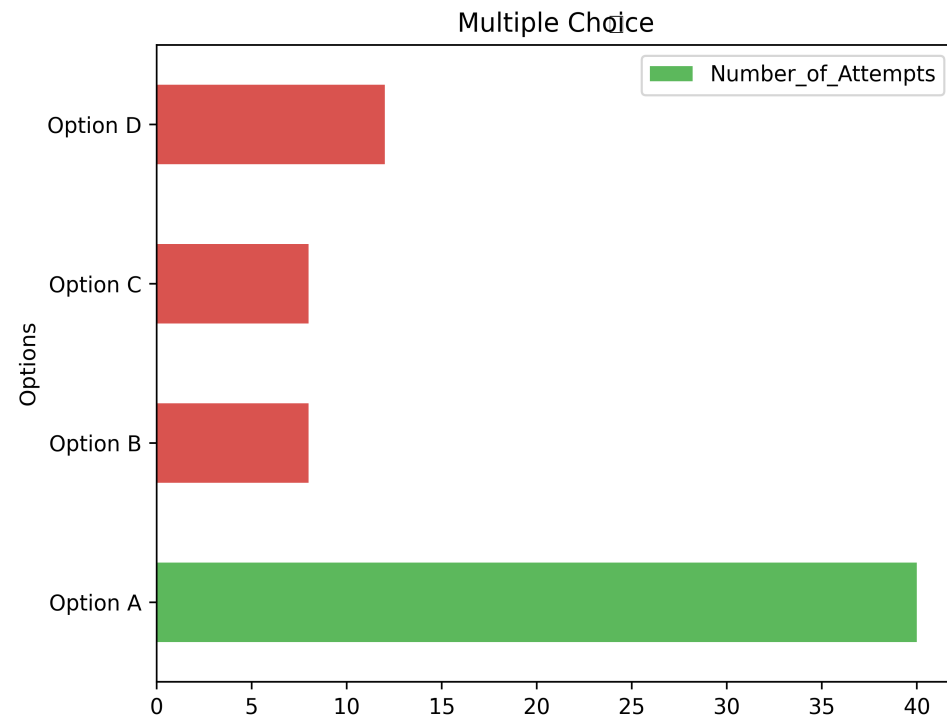
If you roll a six-sided die, what is the probability of getting a 5?

- 1/5
- 16.66%
- 20%
- not present



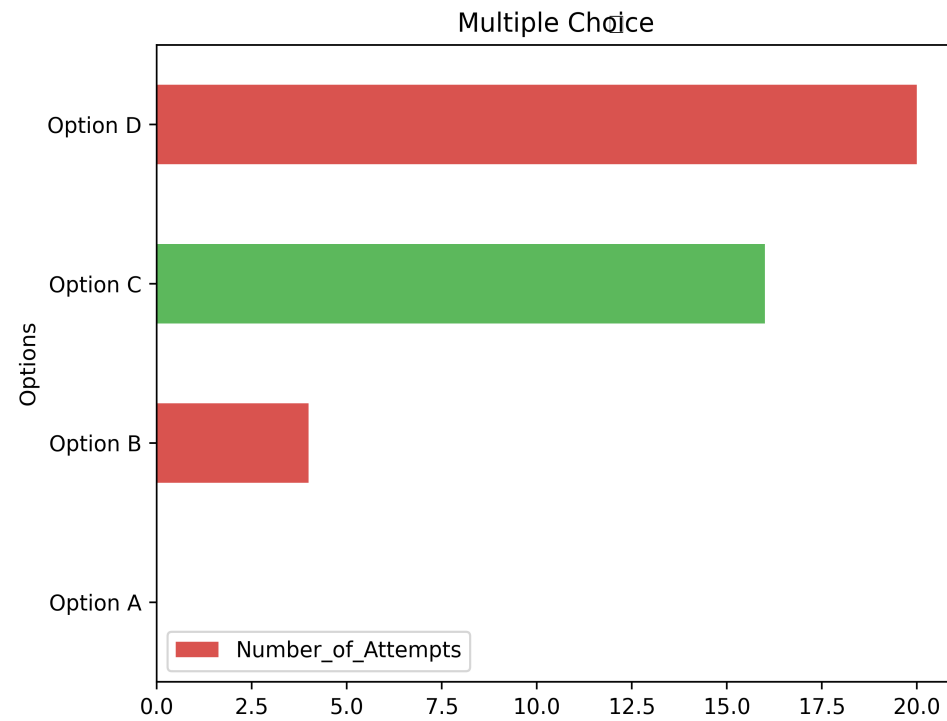
If you roll a six-sided die, what are the odds in favor of not rolling a 5?

- 5:1
- $\frac{5}{6}$
- 0.8333
- 83.33%



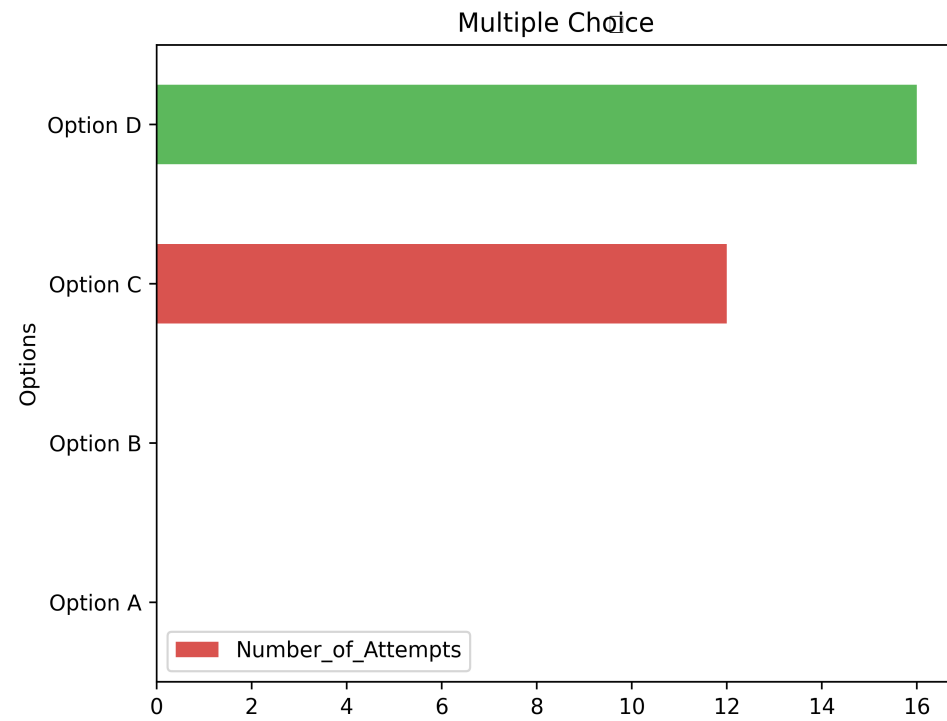
If you roll a six-sided dice, what is the probability of not rolling an even number?

- $\frac{3}{6}$
- 3:3
- 0.5
- $\frac{3}{6}$ , 3:3



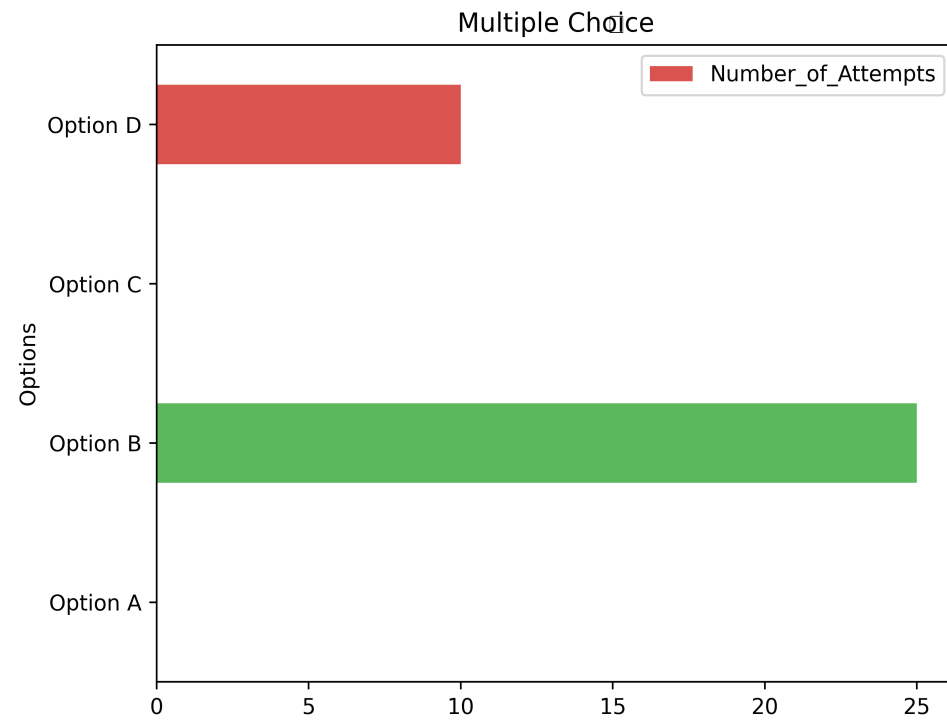
If you roll a six-sided dice, what are the odds in favor of rolling an even number?

- 1:1
- 3:3
- 0.5
- 1:1, 3:3



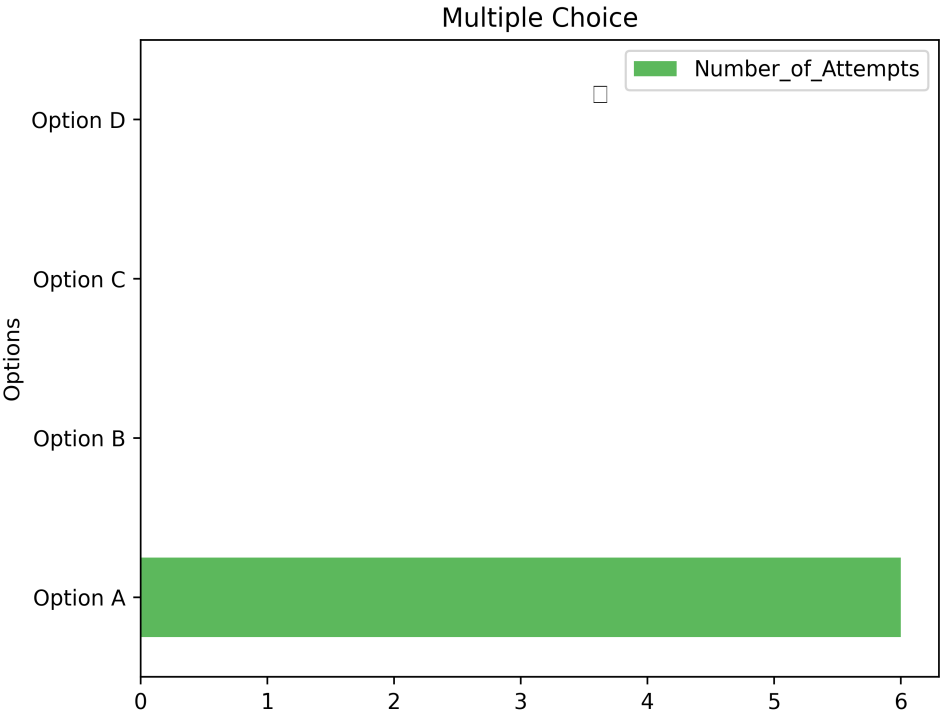
If the odds of an event is 2:1, what is the probability of the event?

- 200%
- 66.66%
- 33.33%
- 50%



Steph Curry is able to make 90.6% of the free throws that he attempts. If Steph Curry is about to make a free throw, what are approximately the odds of him successfully making it?

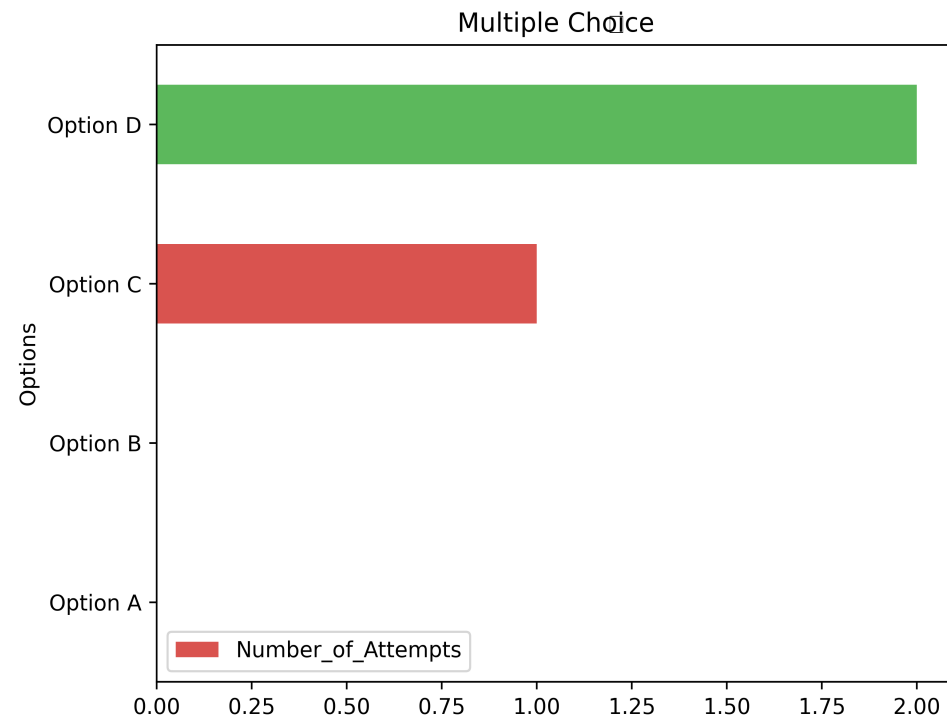
- 9:1
- 1:9
- 90/100
- -1

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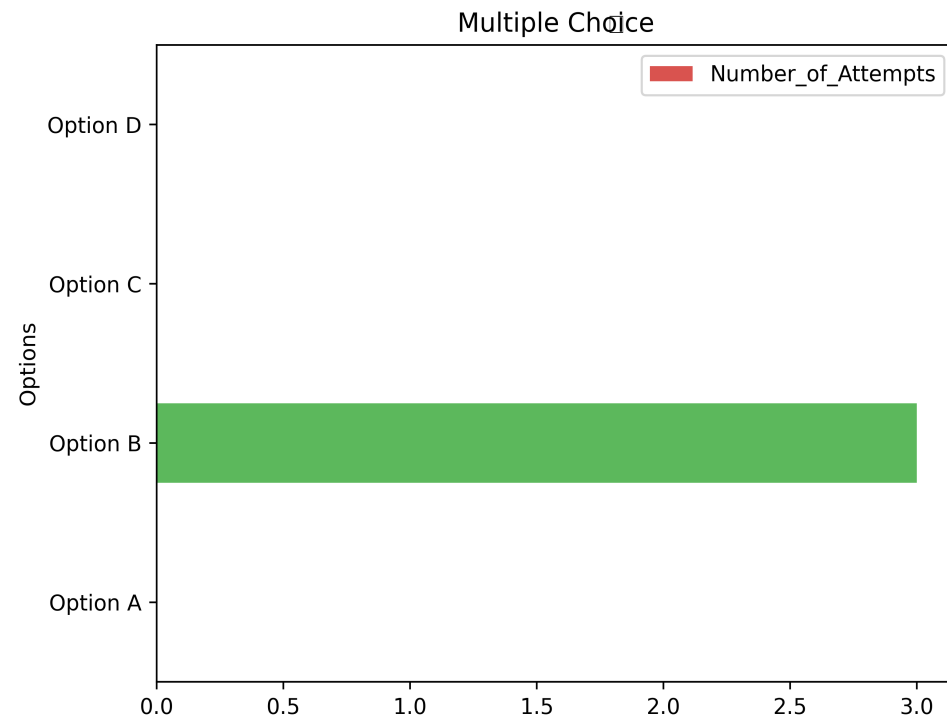
If the probability of an event is 24%, what are the odds of the event?

- 24/100
- 76/24
- 76/100
- 24/76



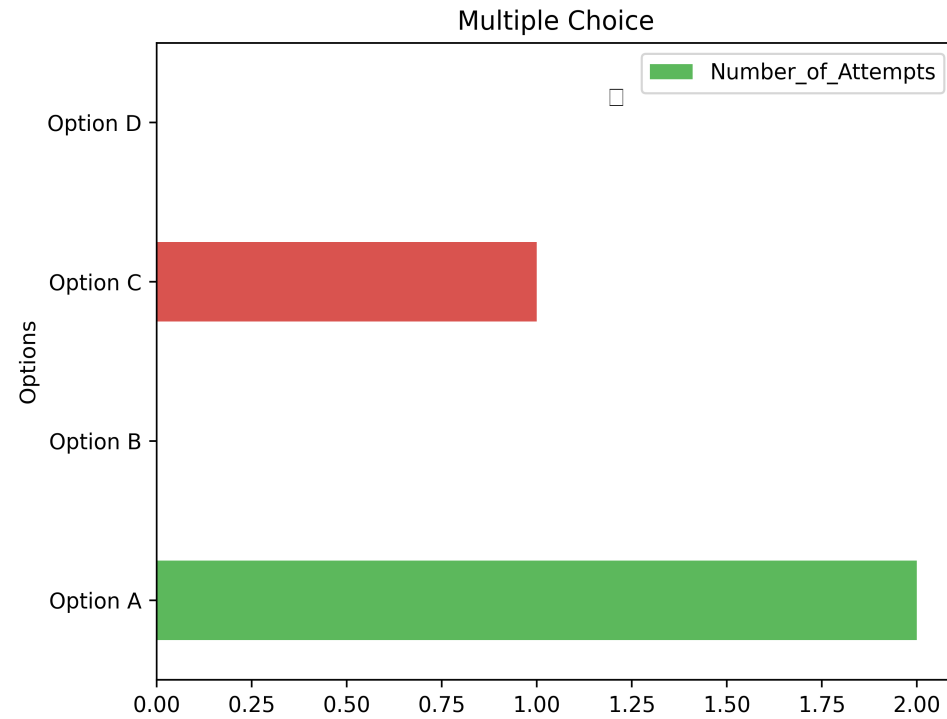
If the odds of an event is 3:2, what is the probability of the event?

- 150%
- 60%
- 30%
- 50%



If the probability of Event A is  $\frac{3}{10}$  and the odds of Event B is  $\frac{4}{10}$ , which event is more likely to occur?

- Event A is more likely to occur
- Event B is more likely to occur
- Event A and Event B are equally likely to occur
- not present

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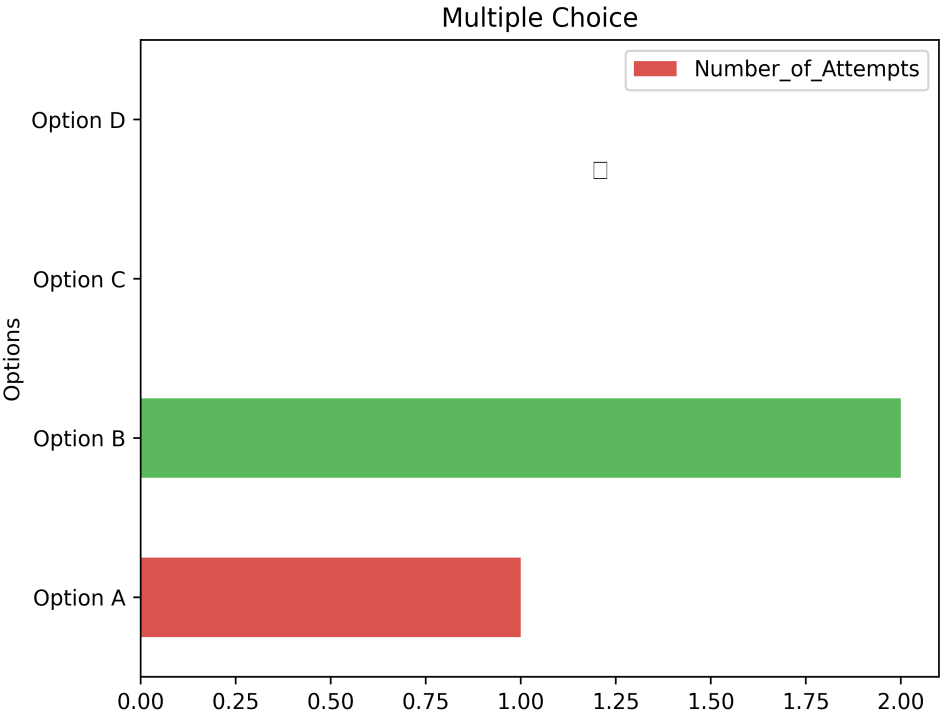
Francis is a contestant on a game show. In order to win, they need to choose one of 15 doors.

Behind 3 of the doors is a winning prize. Francis thinks that the odds of losing the game show

is 12:15. Is Francis correct or incorrect?

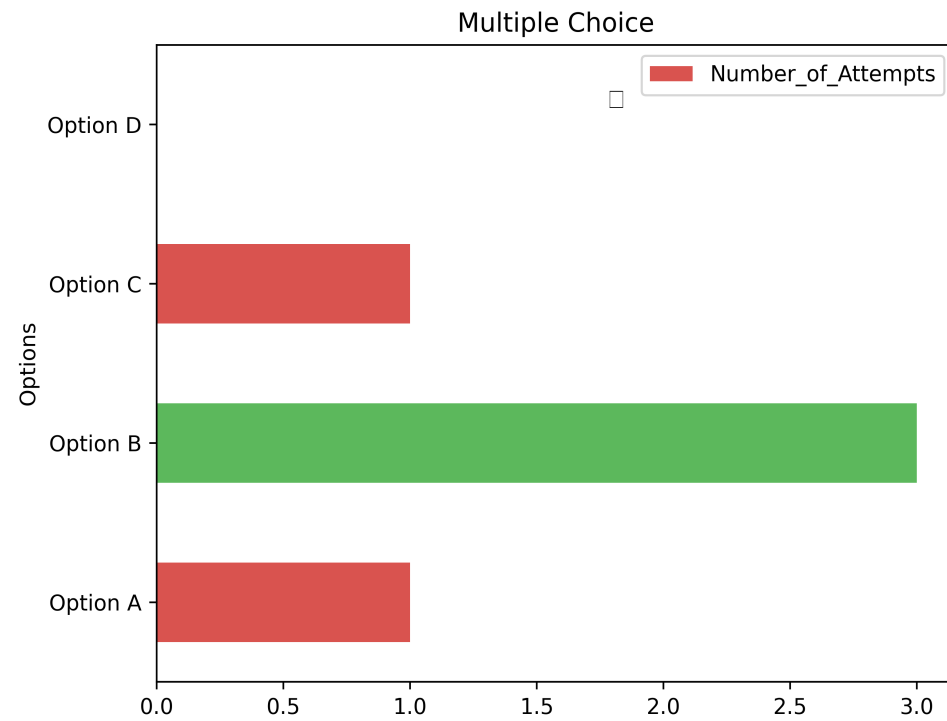
- Francis is correct
- Francis is incorrect
- not present
- not present

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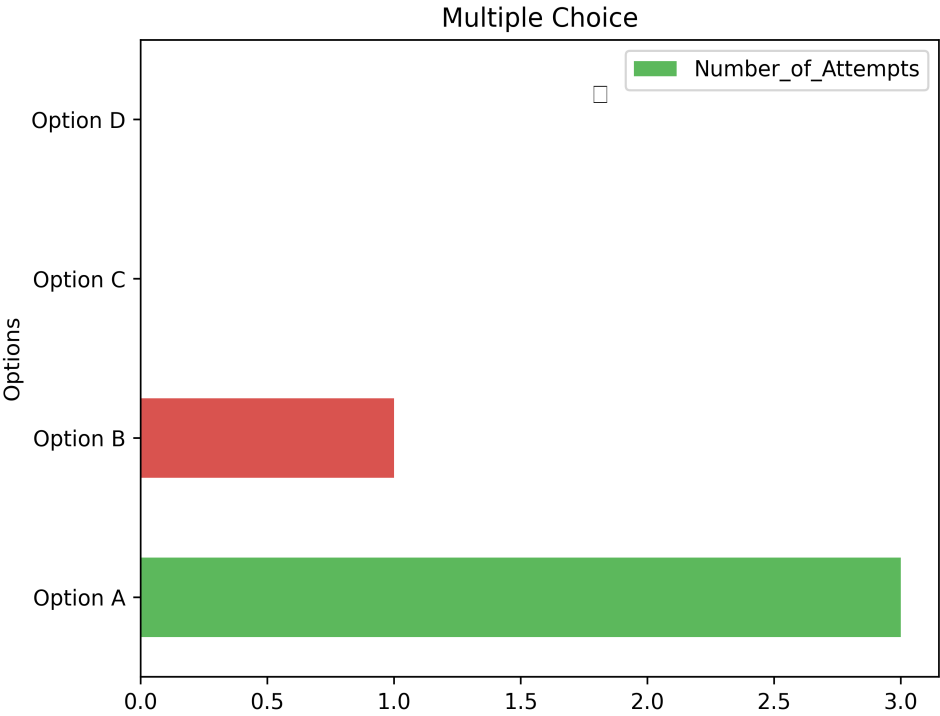
If the sprinter runs 100 races and wins 5 and loses the other 95 times, what is the probability of winning? Select the correct answer

- 0.05%
- 5%
- 95/100
- not present



If the sprinter runs 100 races and wins 80, what are the odds of the sprinter winning a race?Select the correct answer

- 80:20 or 4:1
- 20:80 or 1:4
- 80:100 or 4:5
- 100:80 or 5:4

☐

# Answers from Single Response Questions

The \_\_\_\_\_ can be defined as the fraction of times you expect to see an event in a number of possible trials.

|             |
|-------------|
| probability |
| probability |
| probability |
| probability |
| probability |
| probability |

□



Explain why your answer was correct or incorrect.

|  |
|--|
| It is correct because odds is the probability of the event happening divided by the probability of the event not happening                         |
| This is the definition of probability. Odds are the probability that the event will occur divided by the probability that the event will not occur |
| xyz  |
| xyz  |
| xyz  |
| It is correct because odds is the probability of the event happening divided by the probability of the event not happening                         |
| This is the definition of probability. Odds are the probability that the event will occur divided by the probability that the event will not occur |
| It is correct because odds is the probability of the event happening divided by the probability of the event not happening                         |
| This is the definition of probability. Odds are the probability that the event will occur divided by the probability that the event will not occur |

□

If the odds of Event A is 1:4, what is the probability of Event A? Express your answer as a decimal number between 0 and 1.

|      |
|------|
| xyz  |
| 0.25 |
| 0.25 |



Explain why Francis is correct or incorrect.

|  |
|--|
| Francis is mixing up odds and probability                            |
| Francis is incorrect because they are mixing up odds and probability |
| xyz  |

