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## Quiz 4

1

1/1 point (graded)

You have two fair coins. If you flip a head with the first coin, what is the probability of flipping a head with the second?

☐ 1

☐ 0

☒  $\frac{1}{2}$  ✓

☐  $\frac{1}{4}$

### Answer

Correct: Video: Events

Submit

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**i** Answers are displayed within the problem

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2

1/1 point (graded)

A bag has 3 red and 3 green apples. You start by randomly selecting one red apple from the bag. Which of the following has the highest probability?

- ☐ Select another red apple after replacing the first.
- ☐ Select another red apple without replacing the first.
- ☐ Select a green apple after replacing the first red apple.
- ☒ Select a green apple without replacing the first red apple. ✓

### Answer

Correct: Video: Probability

Submit

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**i** Answers are displayed within the problem

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3

1/1 point (graded)

Which of the following always hold for event A?

☒  $P(A) \geq 0$  ✓

☒  $P(A) \leq 1$  ✓

☒  $P(A) + P(A^c) = 1$  ✓

☒  $P(A^c) \leq 1$  ✓



### Answer

Correct:

Video: Axioms

Video: Axioms

Video: Axioms

Video: Axioms

Submit

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**i** Answers are displayed within the problem

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4

1/1 point (graded)

What is the probability that a fair die lands on 1 or 2, given that you rolled a number strictly less than 4?

☒  $\frac{2}{3}$  ✓

☐  $\frac{2}{4}$

☐  $\frac{1}{3}$

☐  $\frac{1}{2}$

**Answer**

Correct: Video: Conditional Probability

Submit

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**i** Answers are displayed within the problem

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5

1/1 point (graded)

There are 3 bags that each contain 100 marbles.

Bag 1 has 60 red and 40 blue.

Bag 2 has 75 red and 25 blue.

Bag 3 has 45 red and 55 blue.

If you choose one of the bags at random and then choose a marble at random, what is the probability that the chosen marble is red?

☐ 0.2025

☐ 0.33

☐ 0.50

☒ 0.60 ✓

### Answer

Correct: Video: Total Probability

Submit

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**i** Answers are displayed within the problem