

Algebra II Practice S.CP.A.4: Independent or Mutually Exclusive Events

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NAME: _____

1. Are the following events independent?
You choose a pair of shoes and a pair of socks.
2. Are the following events independent?
You roll a number cube twice so that the sum is 8.
3. Are the following events independent?
You spin a spinner twice.
4. Are the following events independent?
You draw a red card from a deck with an equal number of red and blue cards and, before replacing it, draw another red card.
5. Are the following events independent?
You get 100% on your spelling test two weeks in a row.
6. Are the following events independent?
You roll a 3 and a 4.
7. Are the following events independent?
You choose an ice cream flavor for yourself and a friend.
8. Are the following events independent?
You buy two different CDs.
9. Which events are independent?
[A] You swim 10 laps in 15 min today and do the same tomorrow.
[B] You draw a card and don't replace it. Then you draw another.
[C] You choose 2 different ice cream flavors.
[D] You toss two coins and get one head, one tail.
10. Identify the mutually exclusive events.
[A] on Election day, Sue votes, Mya doesn't vote
[B] on Election day, Mya votes, Sue doesn't vote
[C] on Election day, Sue votes, Mya votes
[D] on Election day, Sue votes, Sue doesn't vote
11. Identify the mutually exclusive events.
[A] rolling a 5, drawing a 5 from a deck of cards
[B] with one roll of a number cube, rolling a 5, rolling a 3
[C] picking a 5 from a deck of cards, rolling a 3
[D] with two rolls of a number cube, rolling a 5, rolling a 3
12. Identify the mutually exclusive events.
[A] A and B when $P(A \cap B) = 1$
[B] A and B when $P(A \cap B) = .2$
[C] A and B when $P(A \cap B) = .1$
[D] A and B when $P(A \cap B) = 0$

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[1] yes

[2] no

[3] yes

[4] no

[5] no

[6] yes

[7] yes

[8] no

[9] D

[10] D

[11] B

[12] D