

1. State which events are dependent, and which are independent.

a) Tossing a coin and picking a card

b) Tossing a coin twice

c) Picking two balls from a bag

d) Picking a ball from a bag, replacing the ball, then picking again.

e) Getting a raise in pay, then buying a stereo

f) Being smart and having blonde hair

g) Playing hockey and living in Canada

h) Getting good grades and studying

2. A coin is flipped three times. What is the probability that the coin lands heads all three times?

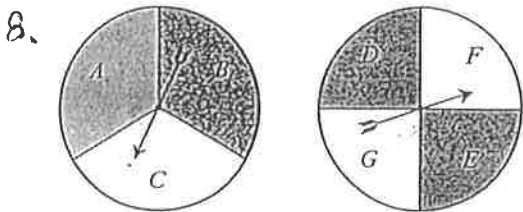
3. If 20% of the students in a math class get an A, what is the probability that two students at random both got A's in math?

4. A coin is tossed and a die is rolled. What is the probability of a head on the coin, and a 5 or 6 on the die?

5. If 5% of the population is allergic to nuts, what is the probability that 3 people chosen at random are all allergic to nuts?

6. A pair of dice is rolled two times. What is the probability of rolling a 7 both times?

7. A pair of dice is rolled three times. What is the probability of rolling a 7 on the first roll, a 4 on the second roll, and a 9 on the third roll?

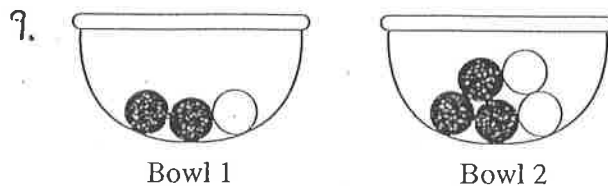


If the left spinner is spun first, and the right spinner is spun next, determine:

a)  $P(A \text{ then } D)$

b)  $P(B \text{ or } C \text{ then } F)$

c)  $P(B \text{ then } D \text{ or } G)$



If a ball is randomly chosen from Bowl 1, then a ball is randomly chosen from Bowl 2, determine:

a)  $P(2 \text{ black})$

b)  $P(\text{black then white})$

c)  $P(\text{white then black})$

10. A card is selected from a deck of 52 cards, then another card is selected after replacing the first card. Determine the probability of each event.

a) Drawing 2 diamonds

b) Drawing 2 face cards

c) Drawing 2 Kings

d) Drawing 2 black cards

12. A bag has 3 black balls, and 2 red balls. A ball is selected and replaced, then another ball is selected. Determine the probability of each event.

a)  $P(\text{both red})$

b)  $P(\text{both black})$

c)  $P(\text{black then red})$

d)  $P(\text{black and red})$

14. A bowl has 4 green marbles, 3 red marbles, and 2 yellow marbles. A marble is selected and replaced before another marble is selected. Determine the probability of each event.

a) Selecting 2 green marbles

b) Selecting a red marble, then a yellow marble

c) Selecting a red marble and a yellow marble

d) Selecting 3 green marbles

11. A card is selected from a deck of 52 cards, then another card is selected without replacing the first card. Determine the probability of each event.

a) Drawing 2 diamonds

b) Drawing 2 face cards

c) Drawing 2 Kings

d) Drawing 2 black cards

13. A bag has 3 black balls and 2 red balls. A ball is selected and not replaced, then another ball is selected. Determine the probability of each event.

a)  $P(\text{both red})$

b)  $P(\text{both black})$

c)  $P(\text{black then red})$

d)  $P(\text{black and red})$

15. A bowl has 4 green marbles, 3 red marbles, and 2 yellow marbles. A marble is selected and not replaced before another marble is selected. Determine the probability of each event.

a) Selecting 2 green marbles

b) Selecting a red marble, then a yellow marble

c) Selecting a red marble and a yellow marble

d) Selecting 3 green marbles