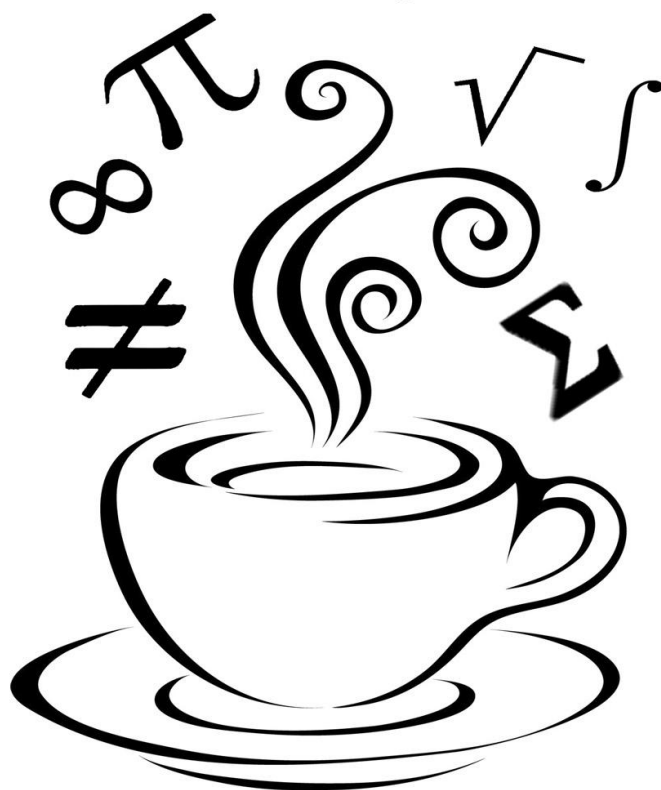# Probability Word Problems Using Independent and Dependent Events

We're Bruyn Math

Shari Bruyn & Associates
Putting the Fun in the Fundamentals of Math

Probability – Independent and Dependent Events

Find the probability of each to the nearest tenth of a percent. Cross off the solutions on the next page to find out why intelligence is like underwear.

1. A fair six-sided die is rolled and a coin is tossed. What is the probability that the die will show an even and the coin lands heads-up?

2. Mrs. Piatt, the math teacher, has six black, nine yellow and two blue calculators. What is the probability that she will hand out a blue calculator to the first student, then hand out a yellow calculator second?

3. You select a card from a standard deck of 52 cards. You return the card, shuffle, and select another card. What is the probability that both cards are clubs?

4. You have a bag of bubble gum containing six grape, nine sour apple and five regular flavored pieces. You randomly pick one piece, give it to your friend, then randomly pick another piece for yourself. What is the probability that both pieces are grape?

5. Coach Lefty has a large cooler of sports drink. There are 6 orange, 3 lemon-lime and 4 fruit punch. Coach Lefty reaches in the cooler and randomly grabs a drink for his pitcher. He grabs orange. He remembers his pitcher doesn't like orange, so he puts it back and randomly grabs another. What is the probability that he'll grab another orange?

6. You roll a die four times. What is the probability that it will show an even number the first three times, then a one the last time?

7. You pick a card from a standard deck of 52 cards, hand it to your friend, then pick one for yourself. What is the probability that your friend has a black card and you have a red card?

8. Children are at milk break. There are three milks left in the crate: one white, one chocolate and one strawberry. What is the probability that Sarah will randomly pick the white milk and Freddie randomly picks the strawberry milk?

9. Sydney has five pink socks, six yellow socks and four red socks in her drawer. What is the probability that she'll randomly pick a yellow sock, put it on, then randomly pick a pink sock?

10. You roll a die three times. What is the probability that it shows a one every roll?

0.5% THER	26.4% ITIS	25.5% YRE	29.3% IMPOR	25.0% OPPER	0.2% TAN	14.3% UNDER	54.2% TTHA
19.4% TYOUH	6.3% PEST	12.5% AVEI	21.3% STLY	1.6% TBUTN	0.1% OTN	6.6% THEW	33.3% ECES
42.4% SARY	10.0% THA	2.1% SSED	15.5% TYOUS	7.9% ANDT	4.8% HOW	19.9% ITOFF	16.7% STLY

Probability – Independent and Dependent Events

Find the probability of each to the nearest tenth of a percent. Cross off the solutions on the next page to find out why intelligence is like underwear.

1. A fair six-sided die is rolled and a coin is tossed. What is the probability that the die will show an even and the coin lands heads-up?

25.0%

2. Mrs. Piatt, the math teacher, has six black, nine yellow and two blue calculators. What is the probability that she will hand out a blue calculator to the first student, then hand out a yellow calculator second?

6.6%

3. You select a card from a standard deck of 52 cards. You return the card, shuffle, and select another card. What is the probability that both cards are clubs?

6.3%

4. You have a bag of bubble gum containing six grape, nine sour apple and five regular flavored pieces. You randomly pick one piece, give it to your friend, then randomly pick another piece for yourself. What is the probability that both pieces are grape?

7.9%

5. Coach Lefty has a large cooler of sports drink. There are 6 orange, 3 lemon-lime and 4 fruit punch. Coach Lefty reaches in the cooler and randomly grabs a drink for his pitcher. He grabs orange. He remembers his pitcher doesn't like orange, so he puts it back and randomly grabs another. What is the probability that he'll grab another orange?

21.3%

6. You roll a die four times. What is the probability that it will show an even number the first three times, then a one the last time?

2.1%

7. You pick a card from a standard deck of 52 cards, hand it to your friend, then pick one for yourself. What is the probability that your friend has a black card and you have a red card?
25.5%

8. Children are at milk break. There are three milks left in the crate: one white, one chocolate and one strawberry. What is the probability that Sarah will randomly pick the white milk and Freddie randomly picks the strawberry milk?
16.7%

9. Sydney has five pink socks, six yellow socks and four red socks in her drawer. What is the probability that she'll randomly pick a yellow sock, put it on, then randomly pick a pink sock?
14.3%

10. You roll a die three times. What is the probability that it shows a one every roll?
0.5%

0.5% THER	26.4% ITIS	25.5% YRE	29.3% IMPOR	25.0% OPPER	0.2% TAN	14.3% UNDER	54.2% TTHA
19.4% TYOUH	6.3% PEST	12.5% AVEI	21.3% STLY	1.6% TBUTN	0.1% OTN	6.6% THEW	33.3% ECES
42.4% SARY	10.0% THA	2.1% SSED	15.5% TYOUS	7.9% ANDT	4.8% HOW	19.9% ITOFF	16.7% STLY

It is important that you have it but not necessary that you show it off.

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