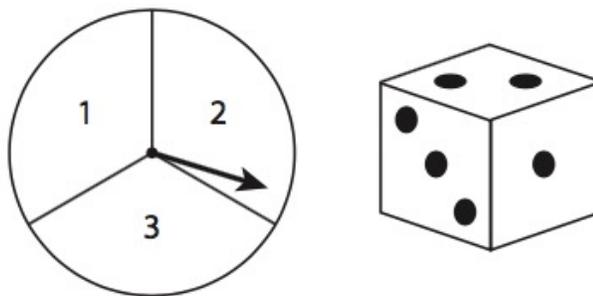


1. Mr. Yasin tosses a coin 4 times. What is the probability that he gets at least 2 tails? Write your answer as a fraction, as a decimal, and as a percent. Build a tree to help you decide!

Use the following diagram and information to complete problems 2 and 3.

Bianca is playing a board game. She spins the spinner and rolls a standard 6-sided die. Let s be the spinner result and let d be the die result.



2. List all the possible outcomes of the event of spinning the spinner once and rolling the die once. Again, building a tree will help~

3. What is the Probability that Bianca of the following events....

- $P(s + d = 5)$
- $P(s - d = 0)$
- $P(s \times d = \text{an even number})$

4. You shuffle a standard deck of 52 cards and then pick a card off the top. Before you look at, calculate the probability of the following events.....

- $P(\text{The card is red})$
- $P(\text{The card is a red card or a face card})$
- $P(\text{A red and a black})$

Ladarius is playing a board game. To find the number of spaces to move, he rolls a pair of dice. Use this information to complete problems 5 and 6.

5. *What is the probability that Ladarius rolls doubles or a sum of 7? Write your answer as a fraction, as a decimal, and as a percent.*
6. *What is the probability that Ladarius rolls a sum that is less than 4 or greater than 5? Write your answer as a fraction, as a decimal, and as a percent.*

Middletown High School has 240 students in the tenth grade. Use this information to complete problems 7 and 8.

7. *The only tenth grade math courses are algebra and geometry. All the tenth grade students are taking at least one math course. There are 142 taking algebra and 120 taking geometry. What is the probability that a randomly chosen tenth grader is taking both algebra and geometry?*
8. *The only tenth grade music courses are vocal and instrumental. There are 89 tenth grade students taking at least one music course. There are 51 taking vocal and 58 taking instrumental. What is the probability that a randomly chosen tenth grader is taking both vocal and instrumental music?*