1. The Smithsburg town library wanted to see what types of books were borrowed the least often.

Home Repair 7%
Mysteries 20%
Other 12%
Science Fiction 18%
Romance 13%
Art 4%
Children's 26%
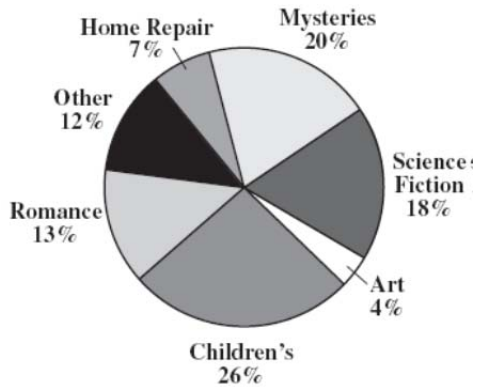
According to the circle graph shown above—

A less Romance books were borrowed than Art and Home Repair combined.

B less than half of the books borrowed were Children's, Science Fiction, and Home Repair combined.

C less than half of the books borrowed were Art, Science Fiction, and Children's combined.

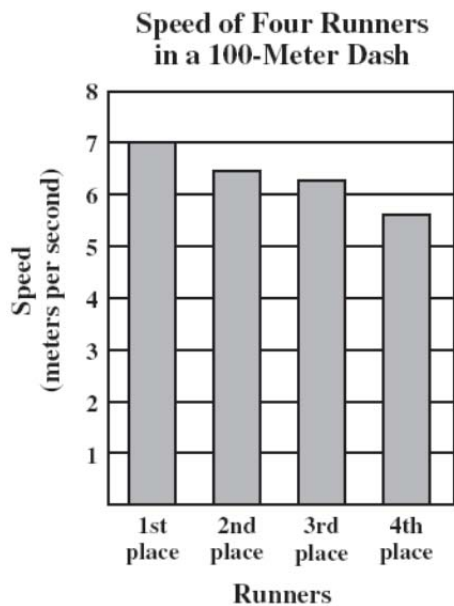**D** less Mysteries books were borrowed than Home Repair and Romance combined.

2. The number of games won over four years for three teams is shown on the graph below.

Games Won
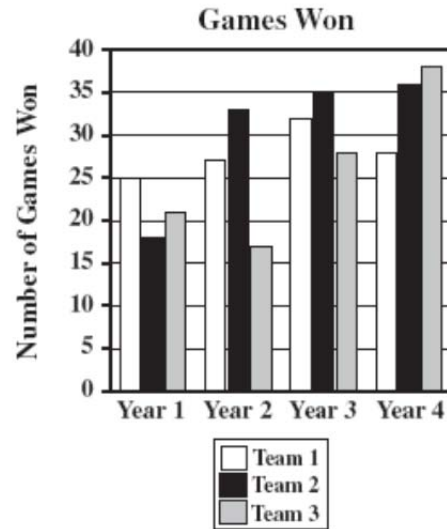
Team 1
Team 2
Team 3

Which statement is true based on the information?

A Team 1 won the most games Year 3.

B Team 3 won more games Year 4 than they did Year 3.

C Team 2 always won more games than Team 1.

D Team 3 always came in second.

3. Based on the bar graph shown below, which of the following conclusions is true?

Speed of Four Runners in a 100-Meter Dash

4. The graph below represents the closing price of a share of a certain stock for each day of a week.

A Everyone ran faster than 6 meters per second.

B The best possible rate for the 100-meter dash is 5 meters per second.

C The first-place runner was four times as fast as the fourth-place runner.

D The second-place and third-place runners were closest in time to one another.
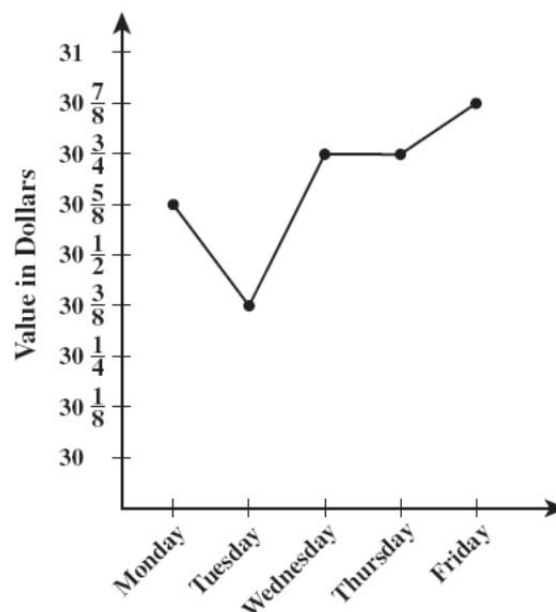
Which day had the greatest increase in the value of this stock over that of the previous day?

A Tuesday

B Wednesday

C Thursday

D Friday

5. There are 5 red marbles, 8 blue marbles, and 12 green marbles in a bag. Jessica removed one green marble from the bag and did NOT put it back. She then randomly removed another marble. What is the probability that the second marble was green?

6. There are 4 cans of Coca Cola, 9 cans of Sprite, and 6 cans of Sunkist soda in a bucket of ice. If James first takes a can of Coca Cola, then what is the probability of Samantha randomly selecting a Sprite?

7. Ken is shopping at the market for quart of ice cream. In the freezer section there are 7 quarts of Rocky Road, 4 quarts of Cookies n' Cream, 5 quarts of Mint Chip, and 6 quarts of vanilla. Ken takes a quart of Rocky Road, but immediately puts it back. What is the probability that Ken randomly selects a quart of Mint Chip?

8. The spin board below is fair. Joshua and Melissa each take a chance flicking the spinner. If Joshua goes first and lands on blue, what is the probability that Melissa will land on yellow or red.

**9.** If a coin is flipped three times, what is the probability of getting three tails.
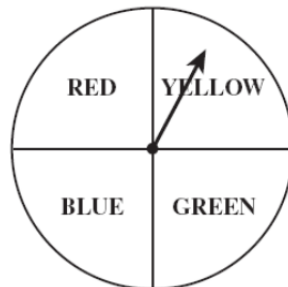
10. A die was rolled six times and each time the outcome was a 3. If the die is rolled again, what is the probability that the outcome is a 2?

First Coin	Second Coin	Third Coin
H	H	H
H	H	T
H	T	H
H	T	T
T	H	H
T	H	T
T	T	H
T	T	T

11. What is the probability of getting a head when flipping a fair coin?

12. What is the probability of getting a four when rolling a fair die?

13. What is the probability of rolling an odd for a fair die?

14. What is the probability of rolling a 1, 5, or 6 for a fair die.

15. These 8 cards are placed face down and shuffled.

1 2 3 4 5 6 7 8
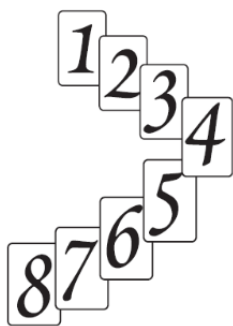
If Beatrice turns over only one card, what is the probability she will get a card with a number less than 6?

16. Fran has 20 CD's in a box: 7 country, 7 rock, 3 dance, and 3 classical. If she takes out one CD without looking, what is the probability that she will pick a dance or classical CD?

17. A bucket contains 5 bottles of apple juice, 7 bottles of orange juice, and 8 bottles of water. If Kira randomly selects a bottle, what is the probability that she will select a drink other than apple juice?

18. The spinner shown below is fair. What is the probability that the spinner will NOT stop on green if you spin it one time? State the probability as a percentage.

| RED | YELLOW |
| BLUE | GREEN |
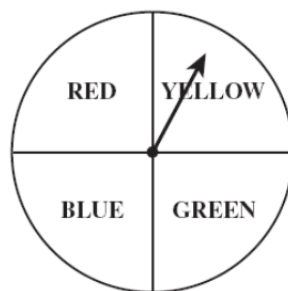
19. What is the probability of not rolling a three for a fair die?

20. Ken's first four paychecks for his job were $115, $102, $76, and $87. What is the mean?

21. The data below shows the number of points scored by the Clippers in the past six games.

68, 97, 90, 103, 121, 104

What is the median price?

22. A list of the number of trips the space shuttle has taken to the moon each year for the past ten years is shown below. What is the mode of the list?

8, 3, 8, 5, 3, 1, 2, 3, 2, 1

Answer Key:

1) C 2) B 3) D 4) A 5) $\frac{11}{24}$ 6) $\frac{1}{2}$ 7) $\frac{5}{22}$ 8) $\frac{1}{2}$ 9) $\frac{1}{8}$ 10) $\frac{1}{6}$ 11) $\frac{1}{2}$ 12) $\frac{1}{6}$ 13) $\frac{1}{2}$

14) $\frac{1}{2}$ 15) $\frac{5}{8}$ 16) $\frac{3}{10}$ 17) $\frac{3}{4}$ 18) 75% 19) $\frac{5}{6}$ 20) $95 21) 100 22) 3