

Solve the problems.

- 1** In the cafeteria, there are 7 teachers, 48 girls, and 45 boys. What is the probability that a person chosen at random from the cafeteria is a boy?

- A** $\frac{9}{20}$ **C** $\frac{9}{11}$
B $\frac{11}{20}$ **D** $\frac{1}{3}$

- 2** Students in a math class were divided into three groups. Each group was given a paper bag filled with an unknown number of marbles of unknown colors. For each bag, a marble was drawn and then put back. Each group repeated this procedure until they recorded 50 draws from the bag. The data for the three bags is shown below.

BAG A

| Color | Number of Marbles |
|--------|-------------------|
| Red | 39 |
| White | 2 |
| Yellow | 9 |
| Purple | 0 |

BAG B

| Color | Number of Marbles |
|--------|-------------------|
| Red | 10 |
| White | 15 |
| Yellow | 15 |
| Purple | 10 |

BAG C

| Color | Number of Marbles |
|--------|-------------------|
| Red | 3 |
| White | 15 |
| Yellow | 7 |
| Purple | 25 |

Choose True or False for each statement.

- A** In Bag B, it is equally likely to draw a white marble as it is a yellow marble. True False
- B** The probability of drawing a yellow marble from Bag C is approximately 7%. True False
- C** The probability of drawing a purple marble from Bag A after 200 draws is likely 0. True False
- D** If marbles from Bag C were drawn 10,000 times, 600 red marbles are likely to be drawn. True False
- E** Each bag contained an equal number of marbles. True False

- 3 Students spin a spinner 500 times. The table shows the results of their experiment.

| Color | Number of Spins |
|--------|-----------------|
| Purple | 100 |
| White | 200 |
| Blue | 150 |
| Pink | 50 |

Based on these results, predict the number of times the spinner will land on blue in 100 spins.

The pointer will land on blue _____ times.

- 4 Tiles with the letters from Ron's name are in a bag. Ron draws a tile, records the letter in a table, and then replaces the letter back in the bag. The table shows the results of his experiment. Predict the number of times Ron will select a consonant in 10,000 trials.

| Letter | Number of Draws |
|--------|-----------------|
| R | 31 |
| O | 28 |
| N | 41 |

Show your work.

Answer Ron will select a consonant about _____ times.

- 5 Mindie tosses a coin 50 times and gets 32 heads. Adam tosses the same coin 50 times and gets 28 heads. Cam tosses the coin 50 times and gets 21 heads. Jade tosses the coin 50 times and gets 24 heads. Use the results to predict the number of heads in 1,000 tosses.

Show your work.

Answer There will be about _____ heads in 1,000 tosses.

 **Self Check** Go back and see what you can check off on the Self Check on page 247.