

Conducting a Probability Experiment

The table shows the results of spinning an unequal color spinner.

Green	
Blue	
Red	
Yellow	

1 What are the possible outcomes? _____

2 How many spins were made? _____

3 Based on this experiment, write fractions to describe the probability of spinning:

Green _____ Blue _____ Red _____ Yellow _____

4 Write a fraction (based on these results) to show the probability of spinning blue OR red. _____

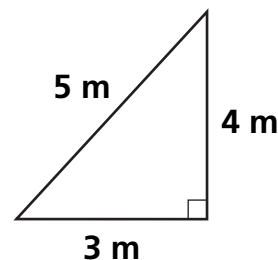
Test Prep

5 The formula, or rule, $Volume = \frac{1}{2} \times (base\ length\ 1 + base\ length\ 2) \times height$ describes the process for finding:

- A. the volume of a prism C. the area of a trapezoid
B. the area of a triangle D. the volume of a pyramid

6 What is the area of this triangle

- A. 6 sq m C. 12 sq m
B. 7.5 sq m D. 15 sq m



Finding Probabilities

Lena and four of her friends each drew a card at random from this deck 20 times. The table shows their results.

2	4	6	8	10	12	14	16	18	20
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Results of Card Draw

TRIAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Card Number	10	6	8	12	20	16	14	20	2	8	6	16	20	14	10	4	4	12	10	2
Card Number	18	4	8	2	10	14	8	14	16	12	2	18	16	20	4	15	14	12	2	10
Card Number	4	10	6	12	16	20	2	6	20	14	20	8	18	12	8	18	16	10	4	12
Card Number	14	12	2	20	10	2	18	6	18	10	18	4	12	14	4	8	16	6	18	8
Card Number	6	2	12	8	8	16	14	12	14	4	20	6	20	18	8	10	18	4	16	6

List 4 possible events. Then use the table above to write a fraction that describes the probability of each of the events.

	Event	Experimental Probability
1	Even number	$\frac{\quad}{100}$
2		
3		
4		



Test Prep

- 5 If you draw a card from the deck above, what is the probability of drawing a card where the sum of the digits is odd? Explain how you know.

Sampling Experiments

Five people performed a sampling experiment. Each one drew a card from a bag, recorded the figure that was drawn on the card, put the card back in the bag, and drew again.

This table shows the data collected by all 5 people.

	Andrea	Bobby	Carrie	David	Elizabeth
▲	3	5	3	4	0
■	9	10	11	7	12
▲	8	5	6	9	8

1 What fraction of the figures would you estimate are ▲s? _____

2 What fraction of the figures would you estimate are ■s? _____

3 What fraction of the figures would you estimate are ▲s? _____

4 If there are 100 figures in the bag, about how many are . . .

. . . ▲s? _____

. . . ■s? _____

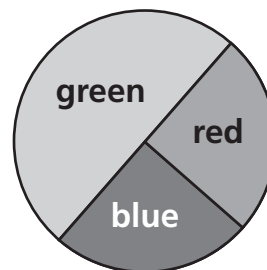
. . . ▲s? _____



Test Prep

5 Look at the spinner. Which statement is true?

- A. If you spin 100 times on this spinner, you are likely to land on green about 75 times.
- B. The likelihood of landing on either red OR blue is the same as landing on green.
- C. If you land on green 50 times and spin 50 more times, you are not likely to land on green again.



Another Sampling Experiment

The list below shows a random sample drawn from a population of 100, all people in Littletown, who watched TV show A, B, C, or N (nothing) at 8:00 on a Wednesday night.

N, B, C, A, A, C, B, C, C, N, A, B, N, C, A, N, C, B, A, N

- 1 Record the fraction of the sample that watched each show.

Show A: $\frac{\underline{20}}{\underline{\quad}}$

Show B: _____

Show C: _____

N(none): _____

- 2 Use the experimental results in Problem 1 to predict the fractions of the entire population that watched each show.

Show A: _____

Show B: _____

Show C: _____

N(none): _____



Test Prep

- 3 For which of the following situations would you compute $\frac{3}{4} \times \frac{1}{2}$?

A. A sandwich with $\frac{3}{4}$ lb of ham and $\frac{1}{2}$ lb of swiss cheese

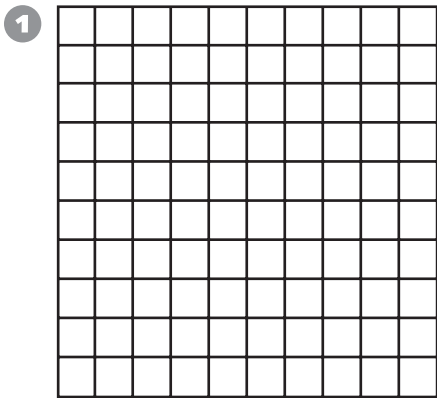
B. You have traveled $\frac{1}{2}$ a mile and the whole trip is $\frac{3}{4}$ of a mile.

C. There is $\frac{3}{4}$ of a pizza on the table and 2 people are sharing it.

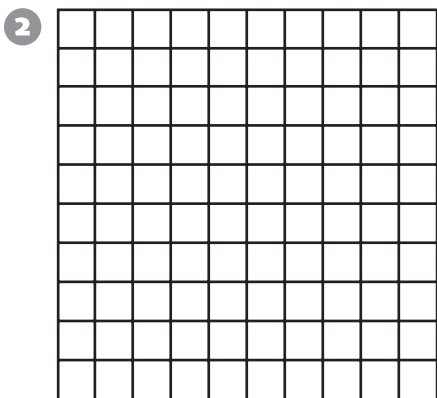
D. Ryan has $\frac{3}{4}$ as many marbles as Jake. I have $\frac{1}{2}$ as many marbles as Jake.

Introducing Percents

Make designs by shading in some of the hundredths. Record the fraction and percent for the shaded part of the large square.



$$\frac{\square}{100} = \underline{\hspace{2cm}} \%$$

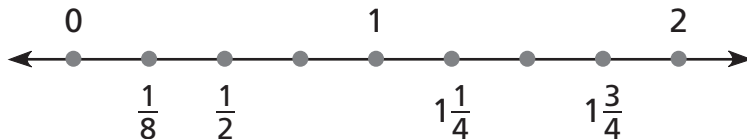


$$\frac{\square}{100} = \underline{\hspace{2cm}} \%$$



Test Prep

- 3 One point is incorrectly labeled on the number line. Which point is it? Explain how you know what the label should be.



Circle Graphs

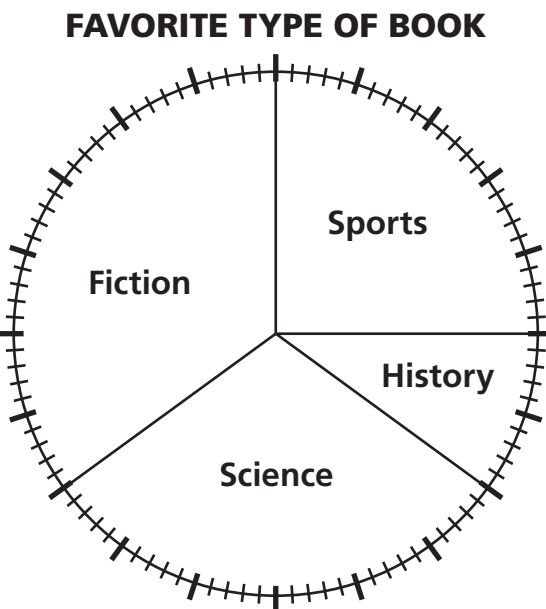
Sixty fifth graders were surveyed to find out their favorite types of books to read. The results are summarized in this graph.

- 1 Which did more fifth graders prefer to read about: sports or science?

- 2 True or false? About a third of the fifth graders chose fiction as their favorite reading material.

- 3 About how many fifth graders preferred to read about sports?

- 4 About what fraction of the students preferred reading about sports or history?



Test Prep

- 5 Which of the following is NOT equivalent to $\frac{2}{8}$ of 360° ?

A. $\frac{1}{4} \times 90^\circ$

B. 90°

C. $\frac{4}{8} \times 180^\circ$

D. $\frac{1}{4}$ of 360°

- 6 Chris made a set of ten cards for multiples of 2 from 2 to 20. He drew one card at random from the deck. What is the probability that he drew a card that is a multiple of 3?

A. $\frac{2}{10}$

B. $\frac{3}{10}$

C. $\frac{4}{10}$

D. $\frac{5}{10}$