

# Data and Probability

Unit Test, Form A (page 1 of 2)

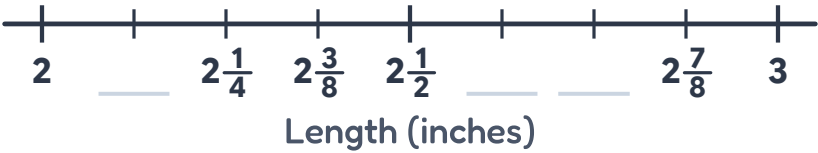
Score \_\_\_\_\_

/ 8

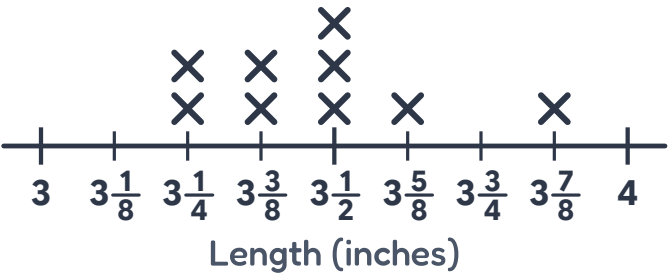
1. Write the missing numbers. Then make a line plot of the lengths.

Feather Lengths (inches)

|                |                |                |                |
|----------------|----------------|----------------|----------------|
| $2\frac{3}{8}$ | $2\frac{1}{2}$ | $2\frac{3}{4}$ | $2\frac{3}{8}$ |
| $2\frac{7}{8}$ | $2\frac{1}{2}$ | $2\frac{1}{4}$ | $2\frac{3}{8}$ |



2. Use the line plot to answer a and b.



- a. How much longer is the longest ribbon than the shortest?  
\_\_\_\_\_ inches
- b. How long are the longest ribbon and a  $3\frac{1}{2}$  inch ribbon together?  
\_\_\_\_\_ inches

3. Tally the data. Write each frequency and the total.

How many pets do you have?

Each number is one student's answer.

|   |   |   |   |
|---|---|---|---|
| 2 | 3 | 1 | 2 |
| 3 | 0 | 2 | 3 |
| 1 | 2 | 4 | 3 |
| 2 | 1 | 3 | 2 |

| Number of Pets | Tally | Frequency |
|----------------|-------|-----------|
| 0              |       |           |
| 1              |       |           |
| 2              |       |           |
| 3              |       |           |
| 4              |       |           |
| Total          |       |           |

4. Make a stem-and-leaf plot. Then write the mode, median and range.

Ages of 11 grandparents

63, 78, 81, 63, 74, 90, 69, 63, 76, 85, 88

| Stem | Leaves |
|------|--------|
| 6    |        |
| 7    |        |
| 8    |        |
| 9    |        |

Key: 7 | 4 means 74

Mode \_\_\_\_\_

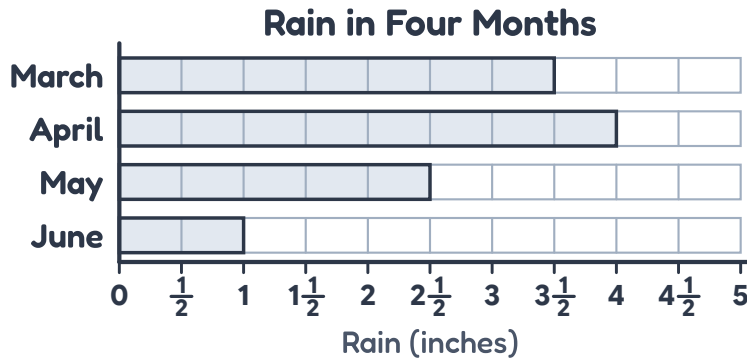
Median \_\_\_\_\_

Range \_\_\_\_\_

# Data and Probability

## Unit Test, Form A (page 2 of 2)

5. Use the bar graph to answer a and b.



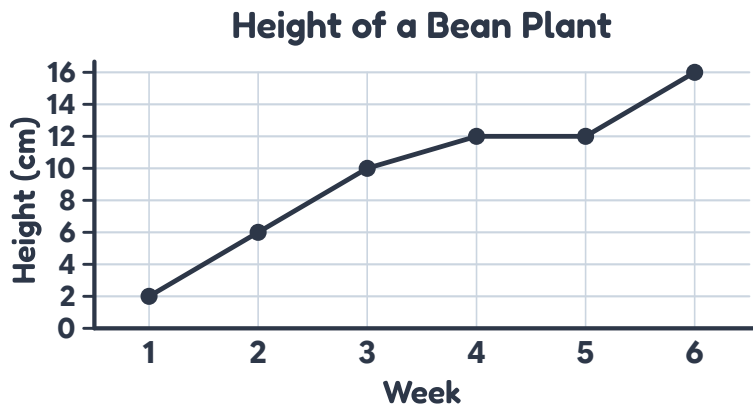
a. How much more rain fell in April than in May?

\_\_\_\_\_ inches

b. How much rain fell in March and June in all?

\_\_\_\_\_ inches

6. Use the line graph to answer a and b.



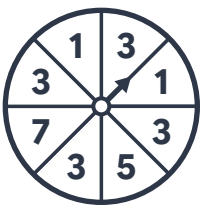
a. How much did the plant grow from week 2 to week 6?

\_\_\_\_\_ centimeters

b. Between which two weeks did the height stay the same?

\_\_\_\_\_

7. Spin once. List the outcomes. Then write how likely each event is.



impossible, unlikely,  
equally likely, likely,  
certain

a. Outcomes \_\_\_\_\_

b. Spin an odd number. \_\_\_\_\_

c. Spin a 7. \_\_\_\_\_

8. Pick one tile without looking. Write each probability as a fraction.

**A** **B**

a. Pick a B. \_\_\_\_\_

**A** **C**

b. Pick an A or a C. \_\_\_\_\_

**A** **B**

**A** **C**

c. Pick a D. \_\_\_\_\_

**B** **A**

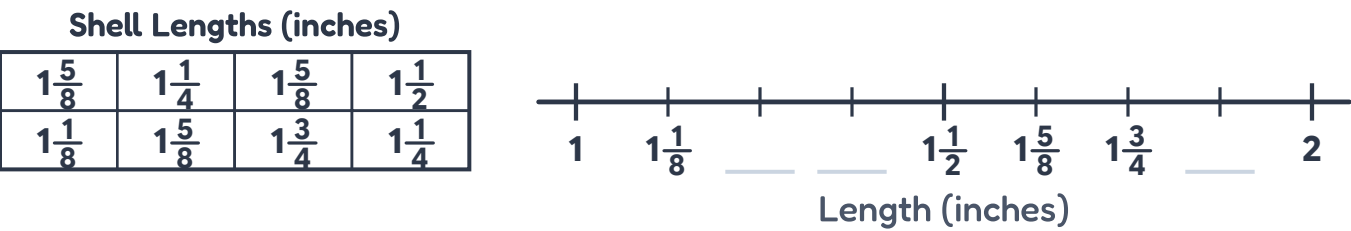
# Data and Probability

Unit Test, Form B (page 1 of 2)

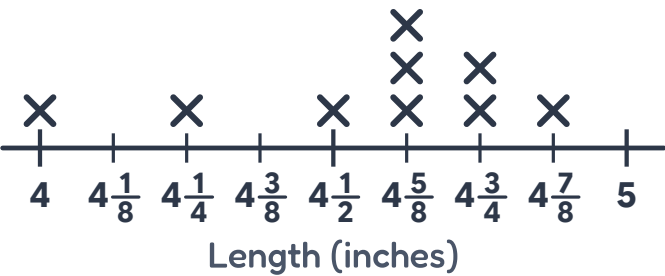
Score \_\_\_\_\_

/ 8

1. Write the missing numbers. Then make a line plot of the lengths.



2. Use the line plot to answer a and b.



- a. How much longer is the longest pencil than the shortest?  
\_\_\_\_\_ inches
- b. How long are the longest pencil and a  $4\frac{3}{4}$  inch pencil together?  
\_\_\_\_\_ inches

3. Tally the data. Write each frequency and the total.

How many baskets did you make?

Each number is one student's answer.

|   |   |   |   |
|---|---|---|---|
| 3 | 2 | 4 | 2 |
| 1 | 3 | 2 | 5 |
| 2 | 3 | 1 | 2 |
| 4 | 3 | 2 | 3 |

| Number of Baskets | Tally | Frequency |
|-------------------|-------|-----------|
| 1                 |       |           |
| 2                 |       |           |
| 3                 |       |           |
| 4                 |       |           |
| 5                 |       |           |
| Total             |       |           |

4. Make a stem-and-leaf plot. Then write the mode, median and range.

Pages in 11 short books

17, 32, 26, 14, 32, 41, 19, 32, 28, 45, 23

| Stem | Leaves |
|------|--------|
| 1    |        |
| 2    |        |
| 3    |        |
| 4    |        |

Mode \_\_\_\_\_

Median \_\_\_\_\_

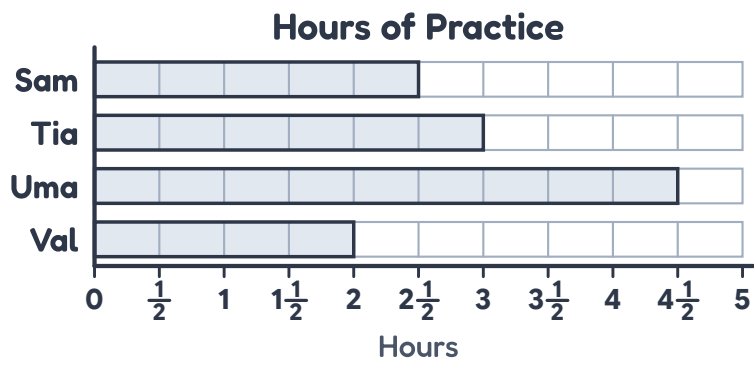
Range \_\_\_\_\_

Key: 2 | 3 means 23

# Data and Probability

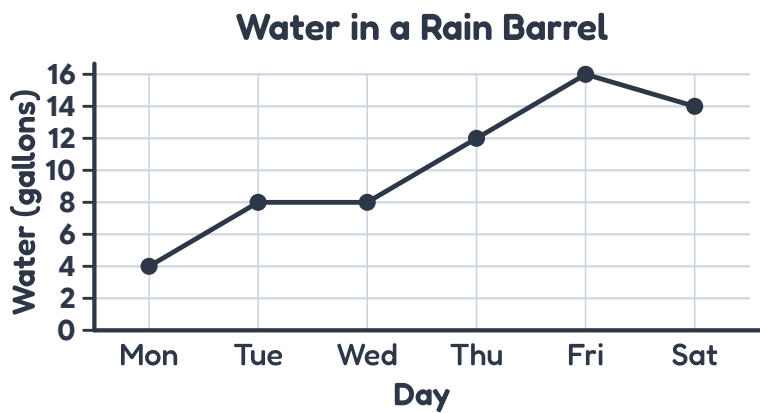
Unit Test, Form B (page 2 of 2)

5. Use the bar graph to answer a and b.



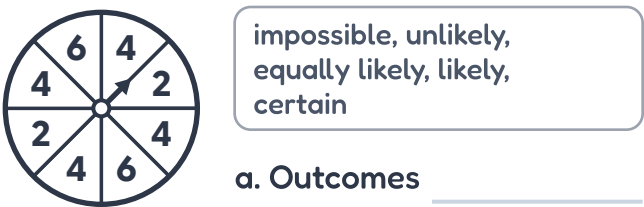
- a. How many more hours did Uma practice than Val?  
\_\_\_\_\_ hours
- b. How many hours did Sam and Tia practice in all?  
\_\_\_\_\_ hours

6. Use the line graph to answer a and b.



- a. How much did the water go up from Monday to Friday?  
\_\_\_\_\_ gallons
- b. Between which two days did the water stay the same?  
\_\_\_\_\_

7. Spin once. List the outcomes. Then write how likely each event is.



- b. Spin an even number. \_\_\_\_\_
- c. Spin a 2. \_\_\_\_\_

8. Pick one tile without looking. Write each probability as a fraction.

|   |   |                      |       |
|---|---|----------------------|-------|
| E | G | a. Pick an F.        | _____ |
| E | G | b. Pick an E or a G. | _____ |
| F | G | c. Pick an H.        | _____ |
| E | G |                      |       |
| E | G |                      |       |

# Data and Probability

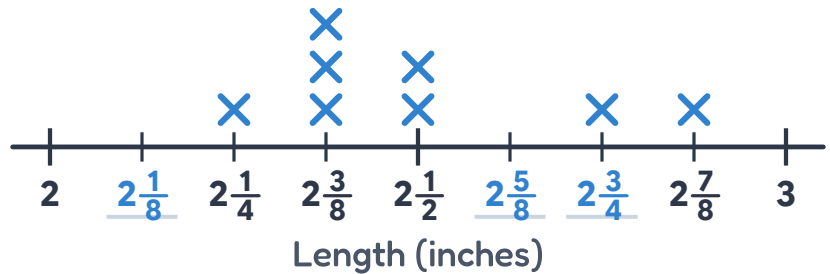
Unit Test, Form A (page 1 of 2)

Score \_\_\_\_\_ / 8

1. Write the missing numbers. Then make a line plot of the lengths.

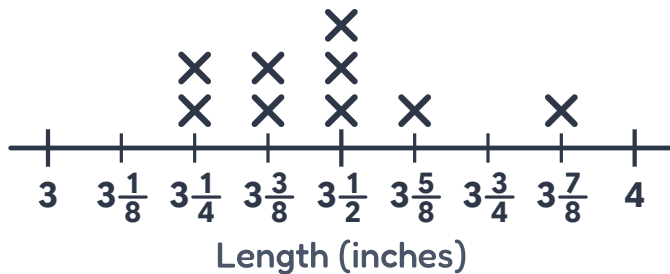
Feather Lengths (inches)

|                |                |                |                |
|----------------|----------------|----------------|----------------|
| $2\frac{3}{8}$ | $2\frac{1}{2}$ | $2\frac{3}{4}$ | $2\frac{3}{8}$ |
| $2\frac{7}{8}$ | $2\frac{1}{2}$ | $2\frac{1}{4}$ | $2\frac{3}{8}$ |



Lesson 13.1 · Make a line plot in eighths

2. Use the line plot to answer a and b.



- a. How much longer is the longest ribbon than the shortest?

$\frac{5}{8}$  inches

- b. How long are the longest ribbon and a  $3\frac{1}{2}$  inch ribbon together?

$7\frac{3}{8}$  inches

Lesson 13.2 · Solve problems with a line plot

3. Tally the data. Write each frequency and the total.

How many pets do you have?

Each number is one student's answer.

|   |   |   |   |
|---|---|---|---|
| 2 | 3 | 1 | 2 |
| 3 | 0 | 2 | 3 |
| 1 | 2 | 4 | 3 |
| 2 | 1 | 3 | 2 |

| Number of Pets | Tally | Frequency |
|----------------|-------|-----------|
| 0              |       | 1         |
| 1              |       | 3         |
| 2              |       | 6         |
| 3              |       | 5         |
| 4              |       | 1         |
| Total          |       | 16        |

Lesson 13.3 · Frequency tables

4. Make a stem-and-leaf plot. Then write the mode, median and range.

Ages of 11 grandparents

63, 78, 81, 63, 74, 90, 69, 63, 76, 85, 88

| Stem | Leaves  |
|------|---------|
| 6    | 3 3 3 9 |
| 7    | 4 6 8   |
| 8    | 1 5 8   |
| 9    | 0       |

Mode  $\underline{63}$

Median  $\underline{76}$

Range  $\underline{27}$

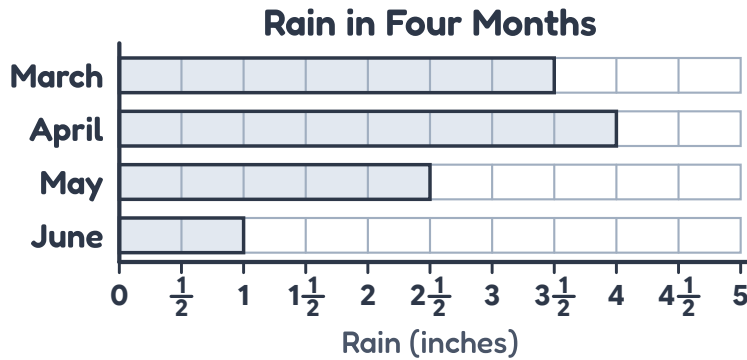
Key: 7 | 4 means 74

Lesson 13.4 · Stem-and-leaf plots

# Data and Probability

Unit Test, Form A (page 2 of 2)

5. Use the bar graph to answer a and b.



a. How much more rain fell in April than in May?

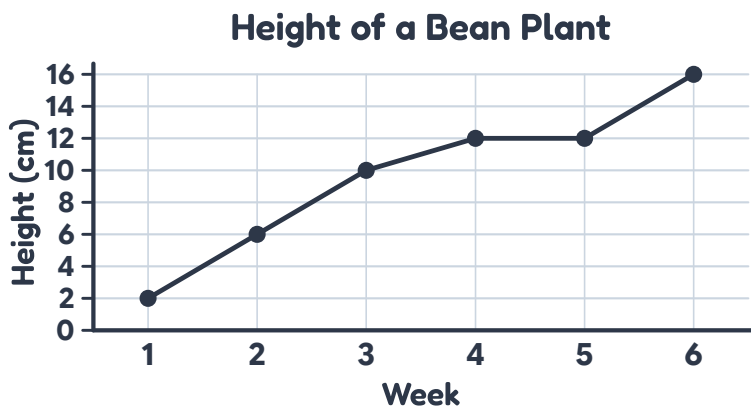
$1\frac{1}{2}$  inches

b. How much rain fell in March and June in all?

$4\frac{1}{2}$  inches

Lesson 13.5 · Scaled bar graphs

6. Use the line graph to answer a and b.



a. How much did the plant grow from week 2 to week 6?

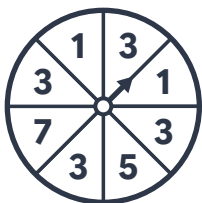
10 centimeters

b. Between which two weeks did the height stay the same?

4 and 5

Lesson 13.6 · Line graphs

7. Spin once. List the outcomes. Then write how likely each event is.



impossible, unlikely,  
equally likely, likely,  
certain

a. Outcomes 1, 3, 5, 7  
(any order)

b. Spin an odd number. certain

c. Spin a 7. unlikely

Lesson 13.7 · Outcomes and how likely

8. Pick one tile without looking. Write each probability as a fraction.



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

b. Pick an A or a C.  $\frac{7}{10}$

c. Pick a D.  $\frac{0}{10}$   
(or 0)

Lesson 13.8 · Probability as a fraction

# Data and Probability

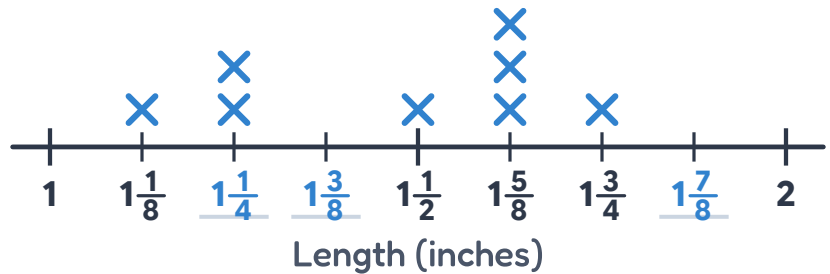
Unit Test, Form B (page 1 of 2)

Score \_\_\_\_\_ / 8

1. Write the missing numbers. Then make a line plot of the lengths.

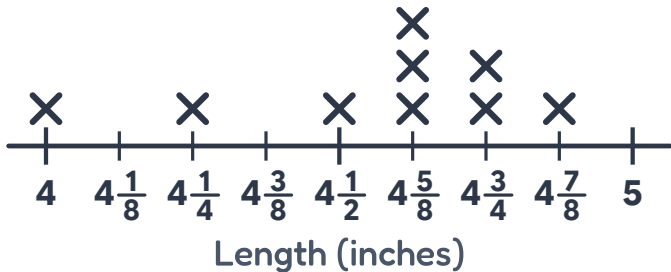
Shell Lengths (inches)

|                |                |                |                |
|----------------|----------------|----------------|----------------|
| $1\frac{5}{8}$ | $1\frac{1}{4}$ | $1\frac{5}{8}$ | $1\frac{1}{2}$ |
| $1\frac{1}{8}$ | $1\frac{5}{8}$ | $1\frac{3}{4}$ | $1\frac{1}{4}$ |



Lesson 13.1 · Make a line plot in eighths

2. Use the line plot to answer a and b.



- a. How much longer is the longest pencil than the shortest?

$\frac{7}{8}$  inches

- b. How long are the longest pencil and a  $4\frac{3}{4}$  inch pencil together?

$9\frac{5}{8}$  inches

Lesson 13.2 · Solve problems with a line plot

3. Tally the data. Write each frequency and the total.

How many baskets did you make?

Each number is one student's answer.

|   |   |   |   |
|---|---|---|---|
| 3 | 2 | 4 | 2 |
| 1 | 3 | 2 | 5 |
| 2 | 3 | 1 | 2 |
| 4 | 3 | 2 | 3 |

| Number of Baskets | Tally | Frequency |
|-------------------|-------|-----------|
| 1                 |       | 2         |
| 2                 |       | 6         |
| 3                 |       | 5         |
| 4                 |       | 2         |
| 5                 |       | 1         |
| Total             |       | 16        |

Lesson 13.3 · Frequency tables

4. Make a stem-and-leaf plot. Then write the mode, median and range.

Pages in 11 short books

17, 32, 26, 14, 32, 41, 19, 32, 28, 45, 23

| Stem | Leaves |
|------|--------|
| 1    | 4 7 9  |
| 2    | 3 6 8  |
| 3    | 2 2 2  |
| 4    | 1 5    |

Key: 2 | 3 means 23

Mode 32

Median 28

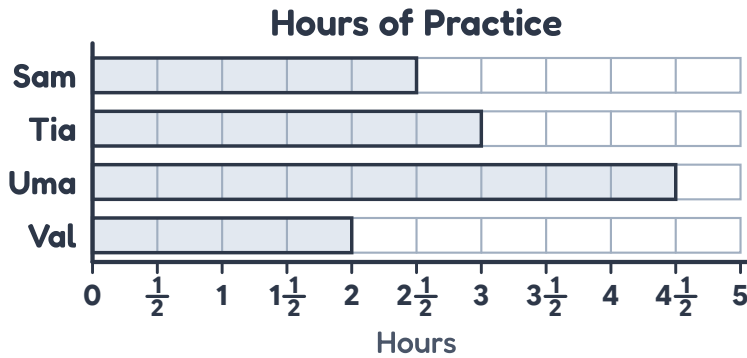
Range 31

Lesson 13.4 · Stem-and-leaf plots

# Data and Probability

Unit Test, Form B (page 2 of 2)

5. Use the bar graph to answer a and b.



a. How many more hours did Uma practice than Val?

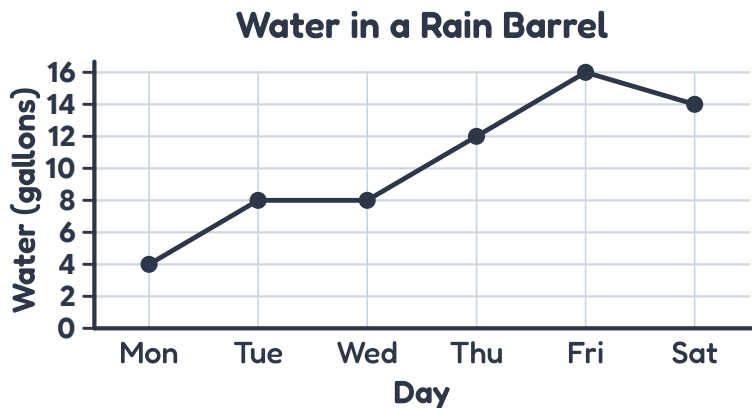
2  $\frac{1}{2}$  hours

b. How many hours did Sam and Tia practice in all?

5  $\frac{1}{2}$  hours

Lesson 13.5 · Scaled bar graphs

6. Use the line graph to answer a and b.



a. How much did the water go up from Monday to Friday?

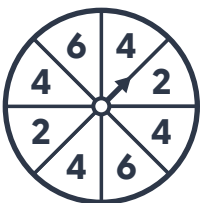
12 gallons

b. Between which two days did the water stay the same?

Tue and Wed

Lesson 13.6 · Line graphs

7. Spin once. List the outcomes. Then write how likely each event is.



impossible, unlikely,  
equally likely, likely,  
certain

a. Outcomes 2, 4, 6  
(any order)

b. Spin an even number. certain

c. Spin a 2. unlikely

Lesson 13.7 · Outcomes and how likely

8. Pick one tile without looking. Write each probability as a fraction.



a. Pick an F.  $\frac{1}{10}$

b. Pick an E or a G.  $\frac{9}{10}$

c. Pick an H.  $\frac{0}{10}$   
(or 0)

Lesson 13.8 · Probability as a fraction