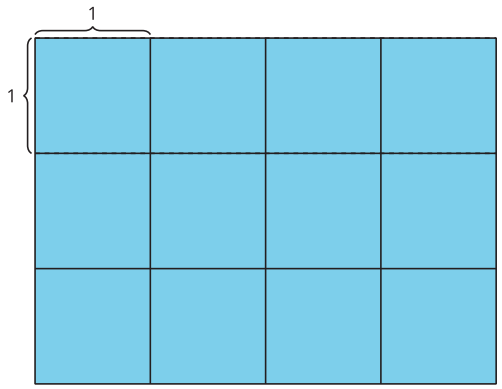
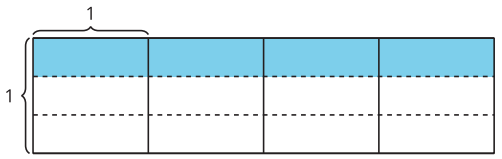
## Section C: Practice Problems

1.



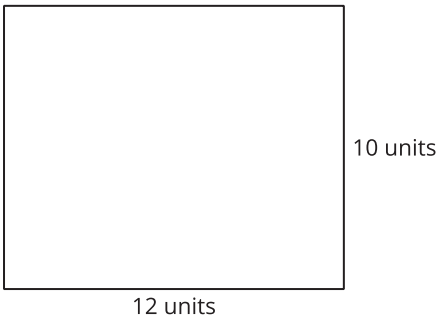




a. How are the diagrams the same? How are they different?

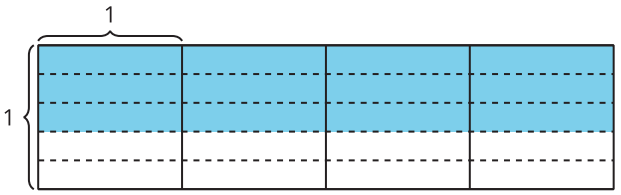
b. How is finding the area of the shaded region the same? How is it different?

(From Unit 2, Lesson 9.)

2. a. What is the area of this rectangle? Explain or show your reasoning.



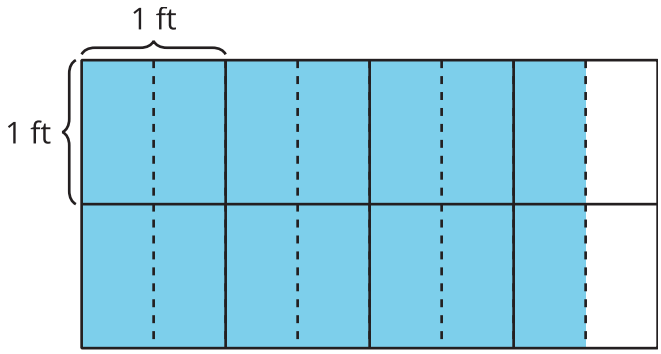

b. What is the area of the shaded region? Explain or show your reasoning.




c. How are these two area calculations the same? How are they different?

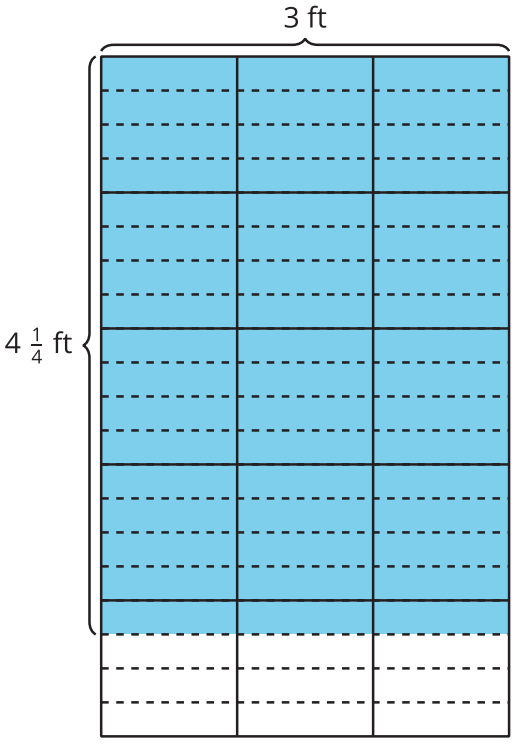
(From Unit 2, Lesson 10.)

3. The shaded part of this diagram shows the top of a stove. What is the area of the stove top? Explain or show your reasoning.




(From Unit 2, Lesson 11.)

4. Find the area of the shaded region. Explain or show your reasoning.




(From Unit 2, Lesson 12.)

5. Select **all** of the expressions that represent the shaded area in square feet.

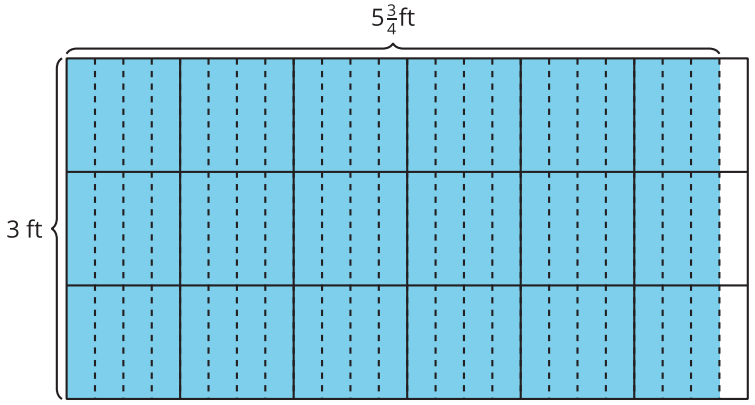
A. $3 + 5\frac{3}{4}$

B. $3 \times 5\frac{3}{4}$

C. $3 \times \left(5 + \frac{3}{4}\right)$

D. $(3 \times 5) + \frac{3}{4}$

E. $3 \times 6 - \left(3 \times \frac{1}{4}\right)$




Write one more expression that represents the shaded area.

(From Unit 2, Lesson 13.)

6. Tyler says that $9\frac{11}{12} \times 5$ is a little less than 50.

a. Do you agree with Tyler? Explain or show your reasoning.

b. What is the value of $9\frac{11}{12} \times 5$?

(From Unit 2, Lesson 16.)

7. A banner at a sporting event is 8 feet long and $2\frac{1}{3}$ feet wide.

   a. Sketch and label a diagram of the banner.

   b. Find the area of the banner.

(From Unit 2, Lesson 14.)

8. Evaluate each expression. Explain or show your reasoning.

   a. $3\frac{2}{5} \times 10$

   b. $8 \times \frac{14}{3}$

   c. $3\frac{41}{100} \times 5$

(From Unit 2, Lesson 15.)

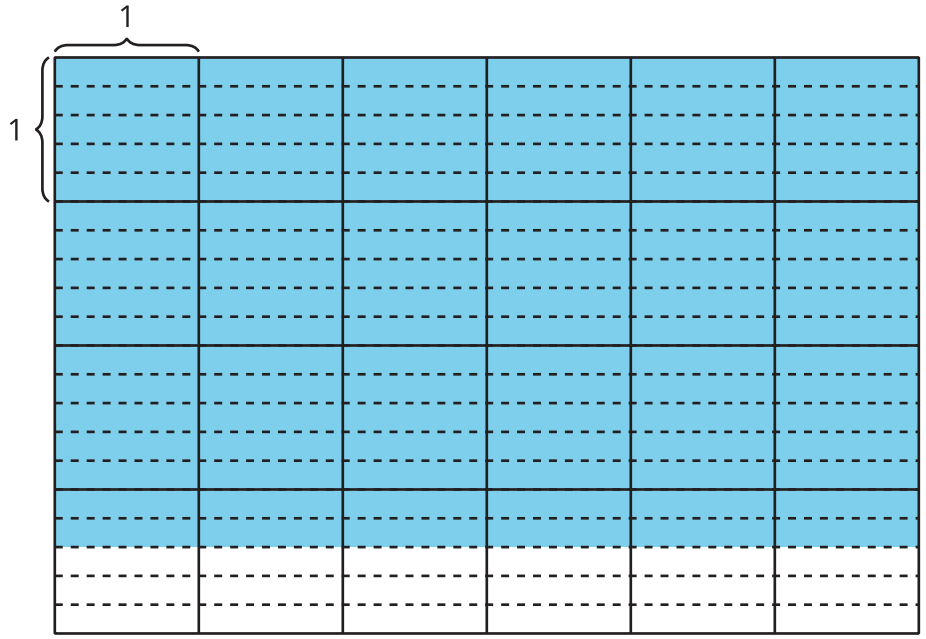
9. **Exploration**

   a. A regular sheet of paper is $8\frac{1}{2}$ inches wide and 11 inches long. How many times would you need to fold the sheet of paper in half before the area is less than 1 square inch? Explain or show your reasoning.

   b. A piece of chart paper is 23 inches wide by 33 inches long. How many times would you need to fold it in half before its area is less than 1 square inch?

10. **Exploration**

Part of the rectangle is shaded.




a. Write a multiplication expression that represents the shaded area.

b. Write a division expression that represents the shaded area.

c. Write any other expressions that represent the shaded area.

11. **Exploration**

This is a picture of the Empire State Building:

The base of the Empire State Building is a rectangle. What do you think the area of the rectangle is in square meters?

a. Make an estimate that is too small.

b. Make an estimate that is too large.

c. The length of the rectangle is $129\frac{1}{5}$ meters. The width is 57 meters. What is the area of the base of the Empire State Building?