Unit 3, Lesson 4

Situations about Multiplying Fractions

Let's solve problems about multiplying a unit fraction and a non-unit fraction.

Warm-up

Number Talk: More Halving

Find the value of each expression mentally.

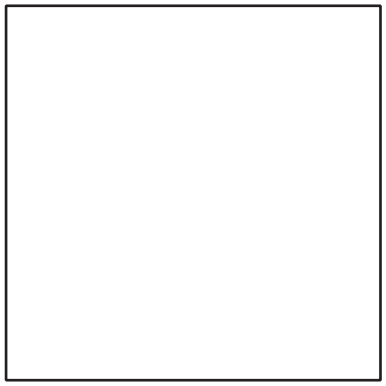
- $\frac{1}{2} \times \frac{1}{2}$
- $\frac{1}{3} \times \frac{1}{2}$
- $\frac{1}{4} \times \frac{1}{2}$
- $\frac{1}{5} \times \frac{1}{2}$

Activity 1

The Park

A city designs a park on a rectangular piece of land. $\frac{2}{3}$ of the park will be used for different sports. $\frac{1}{2}$ of the land set aside for sports will be soccer fields.

1. Draw a diagram of the situation.



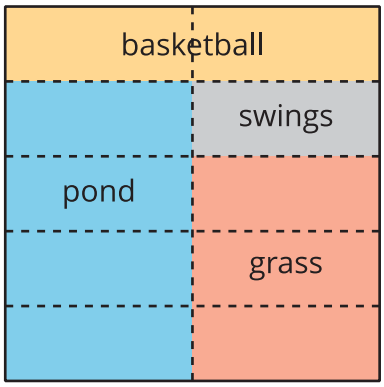
2. Write a multiplication expression to represent the fraction of the park that will be soccer fields.

3. What fraction of the whole park will be soccer fields? Explain or show your reasoning.

Activity 2

A Different Park

Elena draws this diagram to represent a different park.



1. The expression $\frac{3}{5} \times \frac{1}{2}$ represents which part of the park? Explain or show your reasoning.

2. Pick one of the other parts of the park. Write a multiplication expression for the fraction of the park it represents.

3. Trade expressions with your partner. Determine which part of the park their expression represents.