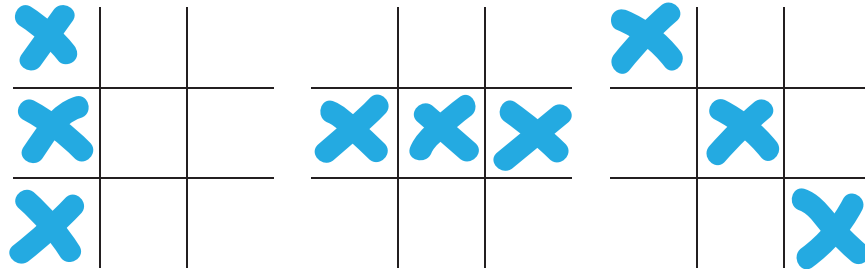


Fraction Multiplication Tic-Tac-Toe

Object of the Game

Be the first player to fill 3 spaces in a row, column, or on the diagonal to win the game.



Three ways to win!

Materials

- Fraction Multiplication Tic-Tac-Toe Board
- Paper to create a shared tic-tac-toe record sheet
- 2 different color pens, pencils, crayons, or markers

Skills

This game helps us practice:

- Multiplying fractions by whole numbers
- Multiplying fractions by fractions

How to Play

1. Draw a large tic-tac-toe board on a sheet of paper.
2. Each player chooses a different color pen, pencil, crayon, or marker.
3. Players take turns choosing a space on the Fraction Multiplication Tic-Tac-Toe Board and recording their response in the corresponding space on the record sheet.
 - » You might wish to use MLC apps to model the fraction multiplication. Consider using any of the following:
 - Number Line (www.mathlearningcenter.org/apps/number-line)
 - Fractions (www.mathlearningcenter.org/apps/fractions)
 - Geoboard (www.mathlearningcenter.org/apps/geoboard)
 - Math Clock (www.mathlearningcenter.org/apps/math-clock)
 - Whiteboard (www.mathlearningcenter.org/apps/whiteboard-app)

4. The first player to fill 3 spaces in a row, column, or on the diagonal wins the game.
5. Have fun!

Tips for Families

- As you play, discuss why you are choosing each space as you claim it.
- Encourage your child to demonstrate and explain the strategies and models they are using to multiply fractions and whole numbers. They may be unfamiliar to you. Ask questions if you don't understand. It's always interesting to learn something new!

Change It Up

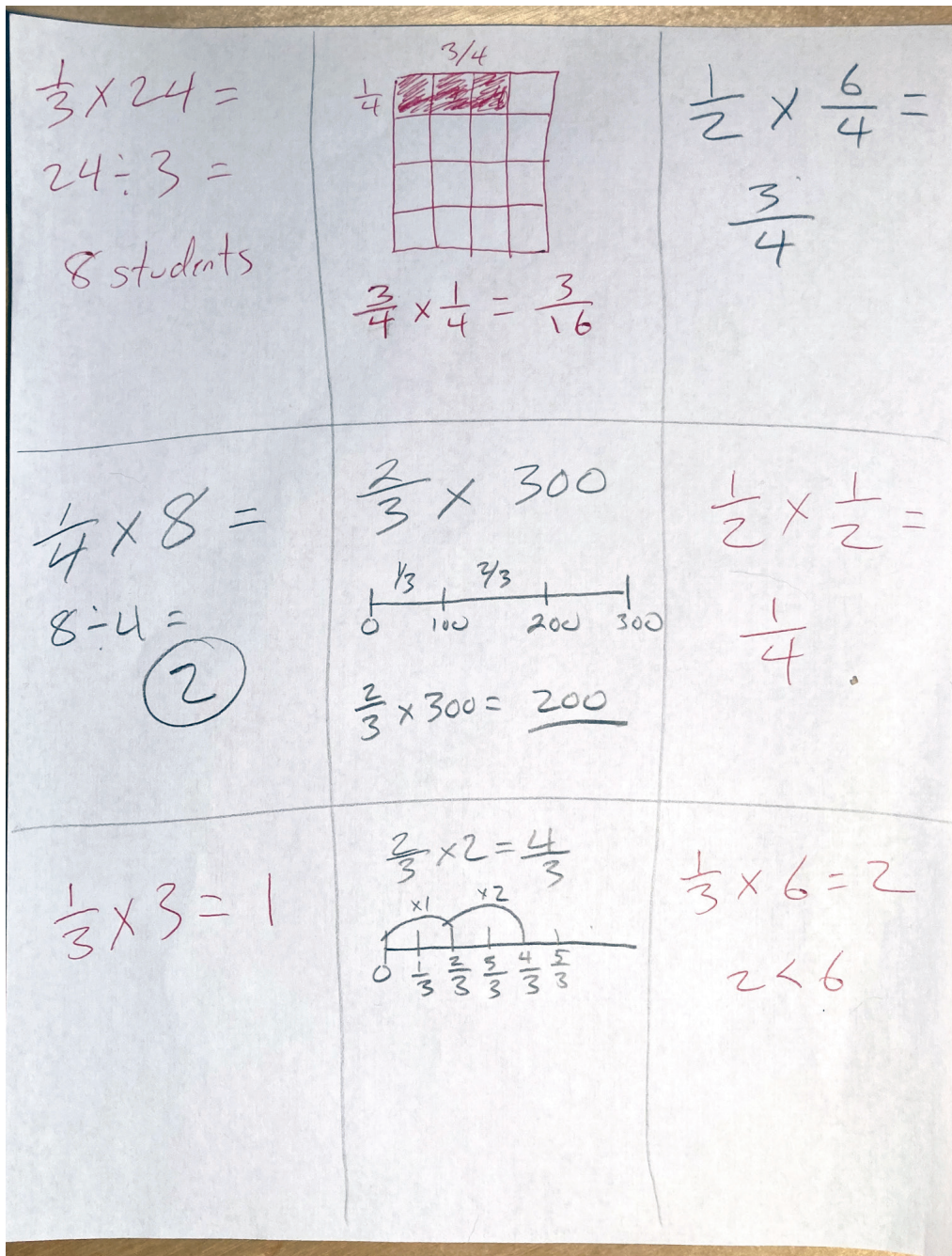
Making even small changes to a game can invite new ways of thinking about the math. Try making one of the changes below.

- Invite your child to create a new tic-tac-toe board with different scenarios. They might choose to focus the game on one type of problem:
 - » Only whole number times fraction problems.
 - » Only fraction times fraction problems.
 - » Mixed numbers times fractions or whole numbers problems.
- Write 9 or more scenarios or problems on slips of paper and place them in a bowl or bag. To claim a space on the board, the player must take a slip of paper and solve the problem on it.

Fraction Multiplication Tic-Tac-Toe Board

<p>24 students are in a class. How many students are $\frac{1}{3}$, $\frac{3}{8}$, $\frac{3}{4}$, or another fraction (you choose) of the class?</p>	<p>Use a geoboard or area model to find the product of $\frac{3}{4}$ and another fraction.</p>	<p>Multiply two fractions so you get a product between $\frac{1}{2}$ and 1.</p>
<p>Multiply a unit fraction times a whole number to get a product less than 5.</p>	<p>Multiply a whole number by $\frac{2}{3}$ to get a product greater than 25</p>	<p>$\frac{1}{2}$ is a useful number. Multiply any fraction or whole number by $\frac{1}{2}$.</p>
<p>Multiply a fraction by a whole number or mixed number so your product is 1.</p>	<p>Use a number line to model multiplying $\frac{2}{3}$ times a whole number greater than 1.</p>	<p>Write and solve a multiplication problem where the product is less than at least one factor.</p>

Sample Responses



The game was a tie, like so many tic-tac-toe games.