The Unit Fraction Game

You need ★ a dice labelled $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{8}$, 1 ★ a dice labelled $+\frac{1}{2}$, $+\frac{1}{4}$, +1, x 2, x 3, x 5 ★ a classmate

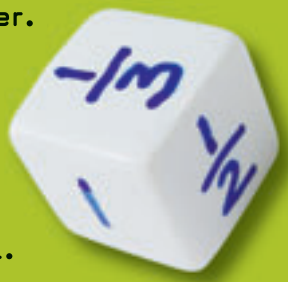
Game

Here is a game that you can play with a classmate to help you improve your fractions skills.

One dice gives you a number; the other dice gives you an operation. One person is "overs"; the other is "unders". Players take turns to throw the dice.

Play six rounds of the game with a classmate:

- Throw the two dice.
- Carry out the operation on the number. Tell your classmate your answer.



SCORING

On your turn:

- If you are the "unders" player, you get a point for an answer less than 1.
- If you are the "overs" player, you get a point for an answer greater than 1.
- You get 2 points when the answer equals 1.
- You get no points for a wrong answer.

Keep the score on a sheet of paper.

The first person to reach 10 points wins the round.

$+\frac{1}{2}$	$\frac{1}{2}$
$+\frac{1}{4}$	$\frac{1}{3}$
+ 1	$\frac{1}{4}$
× 2	$\frac{1}{5}$
× 3	$\frac{1}{8}$
× 5	1

Activity

Juanita plays the Unit Fraction Game with Tama. She loses three rounds in a row. She thinks that the game may not be fair.

1. What does "not fair" mean?
2. What might losing three rounds in a row show?
3. Based on the rounds you played, do you agree with Juanita? Explain.
4. a. With a classmate, find a way of showing that the game is or is not fair.
   b. Write your findings down, along with an explanation of how you reached them.

Focus Comparing experimental results with expectations