

BE RATIONAL

NUMBER & OPERATION BASE TEN



OBJECTIVE: Read, write and compare decimals to the hundredths place using base-ten numerals.

SUPPLIES:

- ♦ Be Rational game boards
- ♦ 4 – 0-9 dice
- ♦ dry erase marker

APPROXIMATE TIME: 10 minutes

TEACHING TIPS:

In this game students will gain a deeper understanding of the difference between the tenths and hundredths place value. The goal of the game is to have the largest number at the end of 4 rolls. Students will roll 0-9 dice all at the same time and then they get to choose if that number represents tenths or hundredths. All students will record their number value on the grid. If they fill out a whole column then it represents the tenths place, if they fill out just individual squares it represents the hundredths place. The player whose turn it is will then take the total score of each player's roll and record it as their number.

Remember the person with the largest number at the end of the round wins. Players need to think about that as they determine if the number they rolled is in the tenths or hundredths.

Once all students have had a chance to get a score students will compare their decimal amounts. The player with the largest amount wins.

Adding Decimal Numbers

- ♦ Place numbers to be added one above the other
- ♦ Make sure all decimal points are lined up in a column
- ♦ Follow rules for adding whole numbers
- ♦ Bring the decimal point down in your answer

Math Terms

Whole Numbers - Counting numbers from 0 to infinity.
0, 1, 2, 3, ...

Rational Numbers - integers, fractions, terminating and repeating decimals ...-3,-2, -1, 0, 1, 2, 3, ...
 $\frac{1}{4}$, 0.5, $\frac{1}{7}$, 0.142857142857

? GUIDED QUESTIONS: TO PROMOTE CRITICAL THINKING AND PROBLEM SOLVING

- ♦ When comparing numbers, which number was the largest and why?
- ♦ Explain what a decimal amount means.
- ♦ Which number is larger, one rounded to the nearest tenth or hundredth?



1 Players will each need Be Rational game boards, 0-9 dice and dry erase marker

3 Determine which player is first to gain points and then all players roll their 0-9 dice.

Player can either:

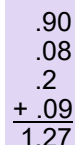
- mark the amount as tenths and cover one column
or
- mark as hundredths and mark off individual squares.

6 Everyone erases their boards except the player who gained points, they erase everything but their score. Repeat directions 3 - 5 for the next players.

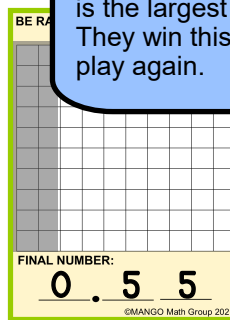
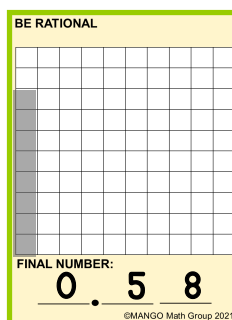
7 Once all the players have gained points players compare their scores to see who has the greatest number and that player wins that round.

8 Play again for 4 more rounds. Player with the most points wins.

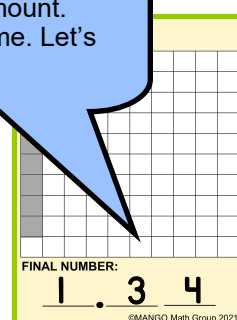
9 Next time winner is the player with the lowest score.



When I add up their amounts I get 1.27.



When we look at the scores of all 4 rounds 1.34 is the largest amount. They win this time. Let's play again.



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FINAL NUMBER:

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