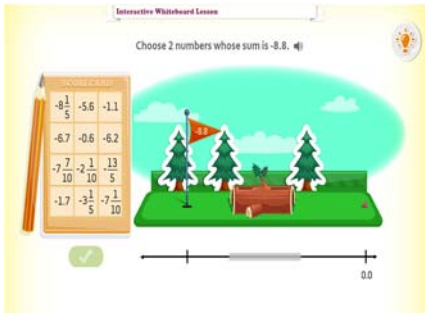


## Fraction and Decimal Sums

The interactive white board tool for this lesson can be found on our website under Resources and Teacher Tools. ([www.dreambox.com/teachertools](http://www.dreambox.com/teachertools))



In this DreamBox lesson, students will use target sums to identify equivalent numerical pairs then test the accuracy on a number line. The lesson is similar to mini golf and contains an obstacle on each course. The length from the tee to the hole is represented by a number line and the region under the obstacle is shown in gray. Each number and its match are equal to the target sum within the problem. The trick is to not choose numbers that fall within the gray region on the number line or your golf ball will be stuck inside of the obstacle.

### Sample Lesson

**Objective:** Students develop fluency with addition & subtraction of fractions & decimals by choosing two numbers that have a target sum.

**Background:** Students should have background knowledge of the adding and subtracting rational numbers, fraction/decimal conversions, and estimation distance on a number line.

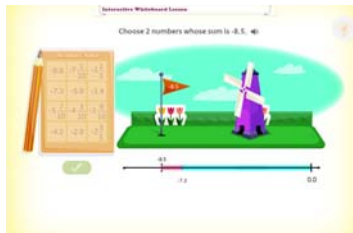
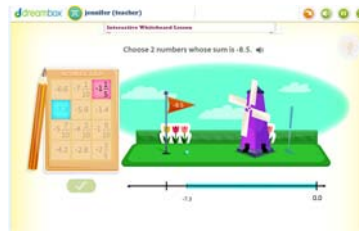
### Instruction:

1. Open the Teacher Tool on an interactive whiteboard or data projector and have the students and their partner find a matching pair of numbers from the scorecard to equal the target sum. Each number on the scorecard contains one match whose sum is equal to the target sum. If students are struggling, give them this information as a hint.
2. As each pair of students have chosen 2 numbers, have them write the different combinations on the board. Make sure they write the numbers in the order in which they want them entered into the lesson. This is also an opportunity to review the commutative property of addition in relation to the sum but the order does matter because of the obstacle on the course.
3. Next, have the class mentally check each pair to determine if there are any incorrect responses. This does include problems in which the ball will come to rest inside of the obstacle. Then have the partners provide the class with any tips, hints, or strategies they used for choosing the pair.

Possible responses:

- The decimals are in the tenths place and all fractions can be converted into tenths. This makes the conversions easy.
- Convert all numbers into the same form; fractions or decimals.
- Choose a number and subtract it from the target sum to create a matching pair.

- Choose one of the pairs from the board to try in the lesson. If the first rational number falls within the gray area on the number line, then the ball will get stuck within the obstacle. The order of the numbers does matter because of this and will test the student's estimation skills.



- Have students identify the mistakes, if any, and make corrections.
- Repeat the activity, giving multiple students an opportunity to share their answers and explanations. If students continue to struggle, review fraction/decimal conversions. Then remind the students to make equivalent fractions with a denominator of 10 and then mentally convert to a decimal since all of the decimals are in the tenths place.