

Subject: Mathematics

Grade: Fifth

Standard: #1 Real-Number Sense

**Key Concept:** Students develop a sense about numbers which allows them to manipulate them appropriately in any given form or structure.

**Generalization:** Students work with real-numbers and determine their reasonableness in various contexts.

**Background:**

A number of whole class, group, and individual activities have been completed which emphasize number-sense and in particular, the reasonableness of values in situations. Several good examples of such activities can be found in the National Council of Teachers of Mathematics, Addenda Series, Grades 5-8, Developing Number Sense, ISBN# 0-87353-322-4.

The teacher prepares sets of “real-number” cards consisting of at least 15 cards. Each card has written on it either a fraction, decimal, mixed number, or whole number. You may make all the sets the same or by varying the number of cards and/or difficulty level of the numbers, you would be tiering also by content.

This lesson is tiered in *product* according to *readiness*.

**Tier I: *Basic Learners***

Pairs of students are given a set of “real-number” cards and a blank Venn diagram which has three overlapping circles labeled as follows: numbers greater than  $1\frac{1}{2}$ , numbers less than 3.5, and numbers between 0 and 15. Students write each number in the appropriate circle.

**Tier II: *Grade Level Learners***

Pairs of students are given a set of “real-number” cards and a blank Venn diagram which has three overlapping circles which are not labeled. Students must sort their cards and decide on labels for each of the circles. Then students write each number in the appropriate circle.

Tier III: *Advanced Learners*

Pairs of students are given a set of “real-number” cards and a blank number line. Students must sort their cards and decide where to place each on the number line. Students complete the lesson by writing each number on the number line.

Assessment:

Grade the products for correctness and any other criteria you have identified on a rubric.