Smaller to Larger Decimals

Object of the Game

Put your cards in order on the grid from smallest to largest (vertically and horizontally). At the end of the game, the winner is the player with the fewest cards that could not be played.

Materials

- **For 4th Grade:** Decimal Card Set A (2 sets)
- **For 5th - 8th Grade:** Decimal Cards Sets A & B (1 set of each for 2 players; 2 sets of each for 3 or 4 players)
- **Decimal Grids** or **Digital Decimal Models** (as needed to support your thinking)
- **Game Mat** (3 x 3 grid)

Math Concepts

Compare, order, read, and represent decimal values. Justify your thinking!

How to Play

1) Mix the Decimal Card Sets A and B together and shuffle them.

2) Draw a 3 x 3 grid for your game mat or use the game mat provided. Make sure your squares are large enough to fit a decimal card in each space.

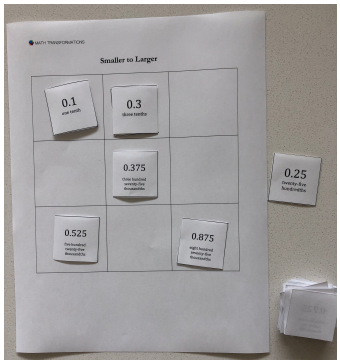
3) Place the deck of combined Decimal Cards face down between the players.

4) Take turns. On your turn, draw the top card from the pile. Read it and decide where you should place it on the game mat. *The numbers must be increasing in order from left to right in each row and from top to bottom in each column.*

5) If you draw a card that cannot be placed on your game mat because of the numbers already placed, you keep the card and lose your turn.

   Example:

   Your game board looks like this and you draw 0.25. It cannot be played because 0.25 is smaller than 0.3 in the first row, smaller than 0.375 in the second row, and does not fit in between 0.525 and 0.875 in the third row. Put the 0.25 card in your pile of cards that you can't play.



Modified from Pearson's Investigations

6) Use the decimal grids or digital decimal models to compare numbers and discuss with your partner as needed.

7) The game is over when each player has filled all nine spaces. The player who has fewer cards that cannot be played wins. If no player is able to fill all nine spaces on the gameboard, the player who was able to place the most cards on the gameboard wins.

Math Talk

I will place _____ before/after/under/above _____ because _____.

I hope I draw a _____ because _____.

I cannot place _____ because _____.

Writing

What is your winning strategy?

Variations

1. Play just with Decimal Card Set A - tenths and hundredths
2. Play with both Decimal Card Sets A & B

Smaller to Larger

Decimal Card Set A

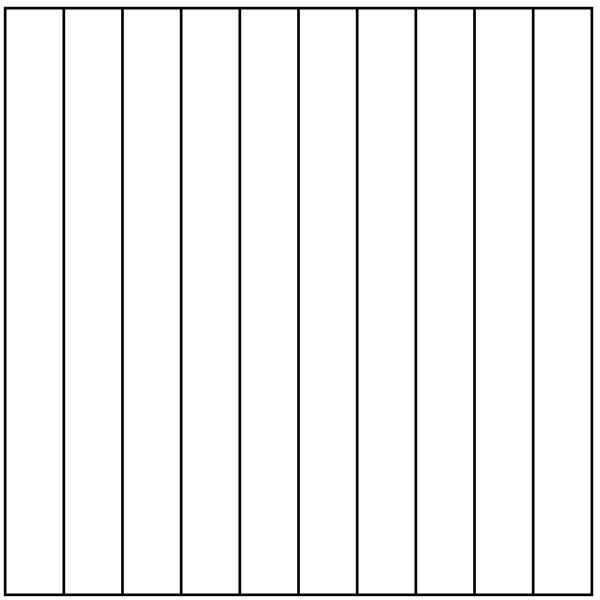
0.1 one tenth	0.2 two tenths	0.3 three tenths	0.4 four tenths
0.5 five tenths	0.6 six tenths	0.7 seven tenths	0.8 eight tenths
0.9 nine tenths	0.05 five hundredths	0.15 fifteen hundredths	0.25 twenty-five hundredths
0.35 thirty-five hundredths	0.45 forty-five hundredths	0.55 fifty-five hundredths	0.65 sixty-five hundredths
0.75 seventy-five hundredths	0.85 eighty-five hundredths	0.95 ninety-five hundredths	1 one

Decimal Card Set B

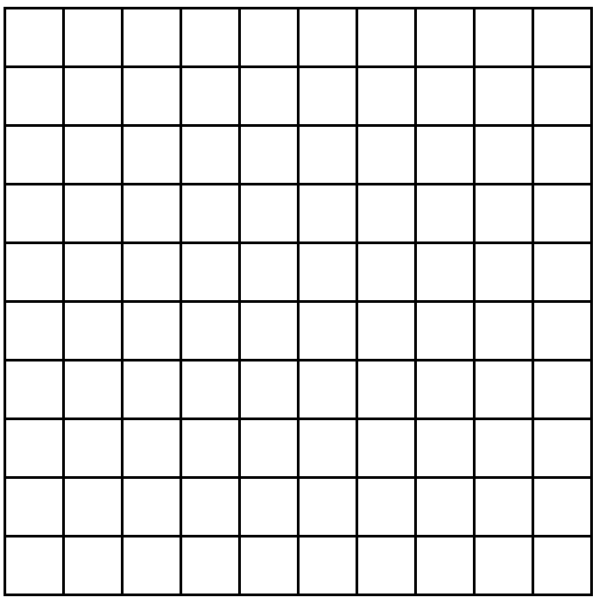
0.025 twenty-five thousandths	0.075 seventy-five thousandths	0.125 one hundred twenty-five thousandths	0.175 one hundred seventy-five thousandths
0.225 two hundred twenty-five thousandths	0.275 two hundred seventy-five thousandths	0.325 three hundred twenty-five thousandths	0.375 three hundred seventy-five thousandths
0.425 four hundred twenty-five thousandths	0.475 four hundred seventy-five thousandths	0.525 five hundred twenty-five thousandths	0.575 five hundred seventy-five thousandths
0.625 six hundred Twenty-five thousandths	0.675 six hundred seventy-five thousandths	0.725 seven hundred twenty-five thousandths	0.775 seven hundred seventy-five thousandths
0.825 eight hundred twenty-five thousandths	0.875 eight hundred seventy-five thousandths	0.925 nine hundred twenty-five thousandths	0.975 nine hundred seventy-five thousandths

Decimal Grids

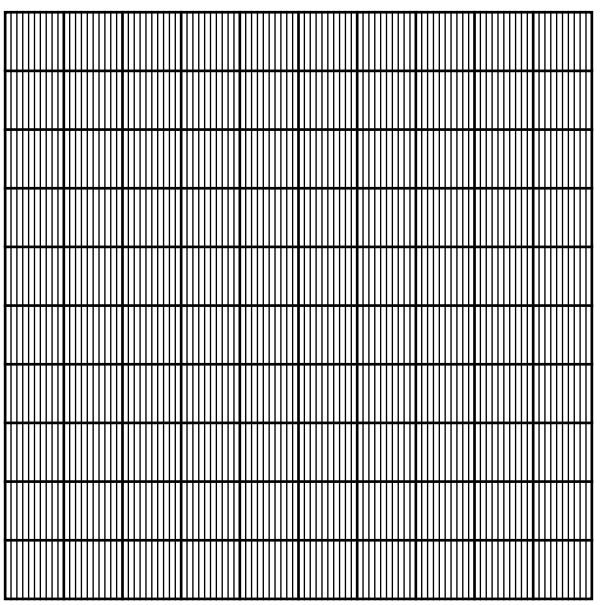
Tenths



Hundredths



Thousandths



Ten Thousandths