Illustrative Mathematics

Grade 4 Unit 2 Lesson 12 CC BY 2021 Illustrative Mathematics®

Unit 2 Lesson 12: Ways to Compare Fractions

WU Estimation Exploration: What's That Point? (Warm up)

Student Task Statement

What is the value represented by the point on the number line?



Make an estimate that is:

too low	about right	too high	

1 The Greatest of Them All

Student Task Statement

Here are 25 fractions in a table.

	А	В	С	D	E
1	$\frac{2}{3}$	$\frac{2}{5}$	$\frac{2}{10}$	$\frac{2}{12}$	$\frac{2}{100}$
2	$\frac{4}{3}$	$\frac{4}{5}$	$\frac{4}{10}$	$\frac{4}{12}$	$\frac{4}{100}$
3	$\frac{7}{3}$	$\frac{7}{5}$	$\frac{7}{10}$	$\frac{7}{12}$	$\frac{7}{100}$
4	$\frac{11}{3}$	$\frac{11}{5}$	$\frac{11}{10}$	$\frac{11}{12}$	$\frac{11}{100}$
5	$\frac{26}{3}$	$\frac{26}{5}$	$\frac{26}{10}$	$\frac{26}{12}$	$\frac{26}{100}$

For each question, be prepared to explain your reasoning.

- 1. Identify the greatest fraction in each column (A, B, C, D, and E).
- 2. Identify the greatest fraction in each row (1, 2, 3, 4, and 5).
- 3. Which fraction is the greatest fraction in the entire table?

2 Relative to $\frac{1}{2}$ and 1

Student Task Statement

Here is the same table you saw earlier.

	А	В	С	D	E
1	$\frac{2}{3}$	$\frac{2}{5}$	$\frac{2}{10}$	$\frac{2}{12}$	$\frac{2}{100}$
2	$\frac{4}{3}$	$\frac{4}{5}$	$\frac{4}{10}$	$\frac{4}{12}$	$\frac{4}{100}$
3	$\frac{7}{3}$	$\frac{7}{5}$	$\frac{7}{10}$	$\frac{7}{12}$	$\frac{7}{100}$
4	$\frac{11}{3}$	$\frac{11}{5}$	$\frac{11}{10}$	$\frac{11}{12}$	$\frac{11}{100}$
5	$\frac{26}{3}$	$\frac{26}{5}$	$\frac{26}{10}$	$\frac{26}{12}$	$\frac{26}{100}$

1. Which fractions are less than $\frac{1}{2}$? Circle each one of them. Then, complete this sentence:

I know a fraction is less than $\frac{1}{2}$ when . . .

2. Which are greater than $\frac{1}{2}$ but less than 1? Circle each of them with a pencil of a different color (or draw a triangle around each one). Then, complete this sentence:

I know a fraction is greater than $\frac{1}{2}$ but less than 1 when . . .

- 3. Circle the remaining fractions with a pencil of a third color (or draw a square around each one). How would you describe the size of these fractions?
- 4. Next to the table, create a legend or key to show what each color (or each shape) represents.
- 5. Here are some pairs of fractions from the table. In each pair, which fraction is greater?

a.
$$\frac{2}{5}$$
 or $\frac{7}{10}$
b. $\frac{4}{10}$ or $\frac{7}{12}$
c. $\frac{11}{100}$ or $\frac{4}{3}$
d. $\frac{26}{10}$ or $\frac{11}{12}$