LESSON MAKER PRO

Fraction Comparison Quest

Compare, order, and explain fractions and mixed numbers.

GRADE 4 · 4.NS.3

4.NS.3 "The student will use mathematical reasoning and justification to represent, compare, and order fractions (proper, improper, and mixed numbers with denominators 12 or less), with and without models..."

NAME _____ DATE _____

COMPARE WITH PARTS AND BENCHMARKS

When fractions have the same denominator, the fraction with more parts is greater. When fractions have the same numerator, the fraction with the smaller denominator is greater because each part is larger. You can also compare fractions to 0, 1/2, and 1.

WORKED EXAMPLE

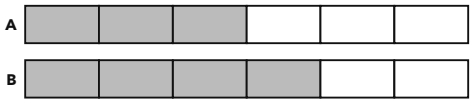
Compare 5/8 and 7/8. Write <, >, or =.

1. Both fractions are divided into 8 equal parts.
2. Compare the numerators: 5 is less than 7.
3. The fraction with 5 parts is smaller.

Answer: 5/8 < 7/8

PRACTICE 6 problems

1 Write a comparison using fractions for model A and model B.



ANSWER _____

2 Write <, >, or =. 11/12 ___ 13/12

ANSWER _____

3 Write <, >, or =. 2/3 ___ 2/4

ANSWER _____

4 Order these numbers from least to greatest: 1/12, 11/12, 1 1/12, 1 11/12.

ANSWER _____

5 Complete the equivalent fraction: 3/4 = ___/12

ANSWER _____

6 Which two expressions equal 10/6? Write both letters. A. 1 4/6 B. 4/6 + 6/6 C. 1 + 6/6 D. 2 1/6

ANSWER _____

APPLY IT Show your work

1 Ten fruit bars are shared equally among 6 teammates after a game. What fraction of a fruit bar does each teammate get? Write the amount as an improper fraction and as a mixed number.

WORK SPACE

ANSWER _____

2 In a reading challenge, Eli read 2/3 of a book, Noor read 11/12 of a book, and Sam read 1 1/12 books. Order the amounts from least to greatest. Explain your reasoning.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Order these numbers from least to greatest: 11/12, 13/12, 1 1/6, 1 3/4. Explain your reasoning by writing the mixed numbers as fractions with denominator 12.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Comparison Quest

GRADE 4 · 4.NS.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write a comparison using fractions for model A and model B.	**3/6 < 4/6**
2	Write <, >, or =. 11/12 ___ 13/12	**11/12 < 13/12**
3	Write <, >, or =. 2/3 ___ 2/4	**2/3 > 2/4**
4	Order these numbers from least to greatest: 1/12, 11/12, 1 1/12, 1 11/12.	**1/12 < 11/12 < 1 1/12 < 1 11/12**
5	Complete the equivalent fraction: 3/4 = ___/12	**9/12**
6	Which two expressions equal 10/6? Write both letters. A. 1 4/6 B. 4/6 + 6/6 C. 1 + 6/6 D. 2 1/6	**A and B**

PART 2 · APPLY IT

1. **10/6 = 1 4/6, or 1 2/3** Write the sharing division as 10/6. Six sixths make 1 whole, leaving 4 sixths.
2. **2/3 < 11/12 < 1 1/12. The fraction 2/3 is 1/3 below 1, while 11/12 is only 1/12 below 1. The mixed number is greater than 1.** Use 1 as a benchmark. Compare how far 2/3 and 11/12 are below 1, then place the mixed number last because it is greater than 1.

CHALLENGE

11/12 < 13/12 < 1 1/6 < 1 3/4. Since 1 1/6 = 14/12 and 1 3/4 = 21/12, the numerators can be compared.

Accept equivalent forms such as 1 2/3 for 1 4/6 in the fruit-bar problem. For explanations, accept correct reasoning using equal denominators, part size, or benchmarks such as 1.