LESSON MAKER PRO

Fraction Landmark Quest

Use 0, 1/2, and 1 to compare fractions and mixed numbers.

GRADE 4 · 4.NS.3.c

4.NS.3.c "Use benchmarks (e.g., 0, 1/2, or 1) to compare and order no more than four fractions (proper or improper), and/or mixed numbers, with like and unlike denominators of 12 or less. Justify comparisons orally, in writing, or with a model.*"

NAME _____ DATE _____

USE FRACTION LANDMARKS

Use 0, 1/2, and 1 as landmarks. First decide which landmark each fraction or mixed number is near or passes, then compare numbers in the same region by making equal-sized parts.

WORKED EXAMPLE

Order 3/8, 1 3/5, and 1/5 from least to greatest.

1. 1/5 and 3/8 are less than 1/2. 1 3/5 is greater than 1.
2. 1/5 = 8/40.
3. 3/8 = 15/40.
4. 8/40 < 15/40, so 1/5 < 3/8 < 1 3/5.

Answer: 1/5 < 3/8 < 1 3/5

PRACTICE 6 problems

1 Write <, >, or =. 4/11 ___ 1/2

ANSWER _____

2 Write <, >, or =. 9/7 ___ 1

ANSWER _____

3 Order 3/4, 5/12, and 2/3 from least to greatest. Then show why 2/3 and 3/4 are in that order.

ANSWER _____

_____

4 Order 1 1/6, 11/12, and 1 1/3 from least to greatest.

ANSWER _____

5 Write <, >, or =. 4/9 ___ 1/2

ANSWER _____

6 Order 7/10, 13/12, 1/4, and 1/2 from least to greatest.

ANSWER _____

APPLY IT Show your work

1 At game club, Rina tested a game level for 5/8 hour, Theo tested for 1 1/6 hours, and Mei tested for 3/4 hour. Order the testing times from least to greatest.

WORK SPACE

ANSWER _____

2 Four students recorded practice times for a talent-show act. Zara practiced 1 1/6 hours, Eli practiced 7/8 hour, Noor practiced 1 1/4 hours, and Ben practiced 5/6 hour. Order the times from closest to 1 hour to farthest from 1 hour. Show any tie.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Order 1 2/7, 9/10, 2/3, and 1 1/8 from closest to 1 to farthest from 1. Explain by comparing each number's distance from 1.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Landmark Quest

GRADE 4 · 4.NS.3.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write <, >, or =. 4/11 ___ 1/2	**4/11 < 1/2**
2	Write <, >, or =. 9/7 ___ 1	**9/7 > 1**
3	Order 3/4, 5/12, and 2/3 from least to greatest. Then show why 2/3 and 3/4 are in that order.	**5/12 < 2/3 < 3/4; 2/3 = 8/12 and 3/4 = 9/12, so 2/3 < 3/4.**
4	Order 1 1/6, 11/12, and 1 1/3 from least to greatest.	**11/12 < 1 1/6 < 1 1/3**
5	Write <, >, or =. 4/9 ___ 1/2	**4/9 < 1/2**
6	Order 7/10, 13/12, 1/4, and 1/2 from least to greatest.	**1/4 < 1/2 < 7/10 < 13/12**

PART 2 · APPLY IT

1. **5/8 < 3/4 < 1 1/6** Both 5/8 and 3/4 are less than 1, while 1 1/6 is greater than 1. Also, 3/4 = 6/8, so 5/8 < 3/4.
2. **7/8, then 1 1/6 and 5/6, then 1 1/4** The distances from 1 hour are 1/6 for 1 1/6, 1/8 for 7/8, 1/4 for 1 1/4, and 1/6 for 5/6. Since 1/8 < 1/6 < 1/4, 7/8 is closest, 1 1/6 and 5/6 tie, and 1 1/4 is farthest.

CHALLENGE

9/10, 1 1/8, 1 2/7, 2/3. Their distances from 1 are 1/10, 1/8, 2/7, and 1/3. Since 1/10 < 1/8 < 2/7 < 1/3, this is the order.

Accept equivalent fractions and correct comparison statements that justify an order. In the second word problem, accept either order for the tied values 1 1/6 and 5/6.