LESSON MAKER PRO

Rational Moves

Work with positive and negative fractions.

GRADE 7 · 7.NS.A.5

7.NS.A.5 "Solve real-world and mathematical problems involving the four operations of rational numbers, including complex fractions. Apply properties of operations as strategies where applicable."

NAME _____ DATE _____

CHOOSE THE OPERATION

To add or subtract fractions, use a common denominator. To multiply, multiply the numerators and denominators. To divide, multiply by the reciprocal of the second fraction, then check the sign of your result.

WORKED EXAMPLE

Find -13/16 + 7/24.

1. Use 48 as a common denominator.
2. -13/16 + 7/24 = -39/48 + 14/48
3. -39/48 + 14/48 = -25/48

Answer: -25/48

PRACTICE 6 problems

1 Find -3/4 + 5/8.

ANSWER _____

2 Find 2/3 - (-1/6).

ANSWER _____

3 Find (-4/9) × (3/10).

ANSWER _____

4 Find (-5/6) / (10/3).

ANSWER _____

5 Find (1/2 - 3/8) / (5/6).

ANSWER _____

6 Find (-2/3 + 1/4) × (-8/5).

ANSWER _____

APPLY IT Show your work

1 In a game, your score changes by -2 1/2 points in each of 4 rounds. Then you gain 3 3/4 points. What is the total change in your score?

WORK SPACE

ANSWER _____

2 You have 2 1/4 GB of free storage. Each video uses 3/8 GB. How many videos can you download before the storage is full?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Ari and Bea calculate (3/4 - 5/6) / (-1/3). Ari says the answer is 1/4. Bea says it is -1/4. Who is right? Show the subtraction and division.

WORK SPACE AND ANSWER

ANSWER KEY

Rational Moves

GRADE 7 · 7.NS.A.5

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find -3/4 + 5/8.	**-1/8**
2	Find 2/3 - (-1/6).	**5/6**
3	Find (-4/9) × (3/10).	**-2/15**
4	Find (-5/6) / (10/3).	**-1/4**
5	Find (1/2 - 3/8) / (5/6).	**3/20**
6	Find (-2/3 + 1/4) × (-8/5).	**2/3**

PART 2 · APPLY IT

1. **-6 1/4 points** Multiply -2 1/2 by 4 to get -10. Then add 3 3/4 to get -6 1/4 points.
2. **6 videos** Divide 2 1/4 by 3/8. Since 9/4 × 8/3 = 6, the storage holds 6 videos.

CHALLENGE

Ari is right. 3/4 - 5/6 = 9/12 - 10/12 = -1/12, and (-1/12) / (-1/3) = (-1/12) × (-3) = 1/4.

Accept equivalent fractions and mixed numbers. In the challenge, look for both a common-denominator subtraction and correct division by a negative fraction.