LESSON MAKER PRO

Rational Number Moves

Use signs, fractions, and decimals to solve.

GRADE 7 · TEKS 7.3.B

7.3.B "apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers."

NAME _____ DATE _____

WORK WITH SIGNS

To add or subtract fractions, rewrite them with a common denominator. Treat subtraction as adding the opposite, then use the signs to decide whether to combine or find the difference. For multiplication and division, use sign rules, and change division to multiplication by the reciprocal.

WORKED EXAMPLE

-4.8 + 2.35

1. Write -4.8 as -4.80.
2. The signs differ, so subtract: 4.80 - 2.35 = 2.45.
3. The number with the greater absolute value is negative.

Answer: -2.45

PRACTICE 6 problems

1 -7/12 + 5/18

ANSWER _____

2 3.75 - (-1.6)

ANSWER _____

3 (-9/14) x (7/15)

ANSWER _____

4 (-5/6) / (10/9)

ANSWER _____

5 -2.4 + (-0.85)

ANSWER _____

6 11/20 - 3/5

ANSWER _____

APPLY IT Show your work

1 Maya's gaming club account has a balance of -$6.50 because it owes a fee. The club earns $14.25 by streaming a tournament. What is the new balance?

WORK SPACE

ANSWER _____

2 A podcast club records 5 1/2 minutes of audio and divides it equally into 4 short clips. How long is each clip?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Evaluate: [(-7/8 + 1/4) / (-3/2)]

WORK SPACE AND ANSWER

ANSWER KEY # Rational Number Moves

GRADE 7 · TEKS 7.3.B

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	-7/12 + 5/18	**-11/36**
2	3.75 - (-1.6)	**5.35**
3	(-9/14) x (7/15)	**-3/10**
4	(-5/6) / (10/9)	**-3/4**
5	-2.4 + (-0.85)	**-3.25**
6	11/20 - 3/5	**-1/20**

PART 2 · APPLY IT

1. **$7.75** Add the earnings to the negative balance: -6.50 + 14.25 = 7.75. The account has a positive balance of $7.75.
2. **1 3/8 minutes** Divide 5 1/2 by 4: 11/2 / 4 = 11/8. Rewrite 11/8 as 1 3/8 minutes.

CHALLENGE

5/12

Accept equivalent fraction forms and decimal forms when they are exact. For the word problems, accept answers with correct units, including $7.75 and 1 3/8 minutes.