LESSON MAKER PRO

Fraction Fix-It

Estimate, solve, and simplify like-denominator fractions.

GRADE 4 · 4.CE.3.a

4.CE.3.a "Estimate and determine the sum or difference of two fractions (proper or improper) and/or mixed numbers, having like denominators limited to 2, 3, 4, 5, 6, 8, 10, and 12 (e.g., 3/8 + 3/8, 2 1/5 + 4/5, 7/4 - 5/4) and simplify the resulting fraction. Addition and subtraction with fractions may include regrouping.*"

NAME _____ DATE _____

SAME DENOMINATOR STEPS

When fractions have the same denominator, add or subtract the numerators and keep the denominator. Estimate first with 0, 1/2, 1, or a nearby whole number, then simplify your exact answer. If you subtract mixed numbers and the top fraction is too small, regroup one whole as a fraction with the same denominator.

WORKED EXAMPLE

2 5/12 + 1 7/12

1. Add the whole numbers: 2 + 1 = 3.
2. Add the fractions: 5/12 + 7/12 = 12/12.
3. Rename 3 + 12/12 as 4.

Answer: 4

PRACTICE 6 problems

1 Estimate, then find the exact sum. Simplify. 3/8 + 4/8

ANSWER _____

2 Estimate, then find the exact difference. Simplify. 11/10 - 3/10

ANSWER _____

3 Estimate, then find the exact sum. Simplify. 1 3/4 + 2 2/4

ANSWER _____

4 Estimate, then find the exact sum. Simplify. 5/6 + 9/6

ANSWER _____

5 Estimate, then find the exact difference. Simplify. 4 1/5 - 2 4/5

ANSWER _____

6 Estimate, then find the exact difference. Simplify. 17/12 - 5/12

ANSWER _____

APPLY IT Show your work

1 Jordan practiced guitar for 1 7/10 hours on Saturday and 2 6/10 hours on Sunday for the school talent show. Estimate the total time, then find the exact total time.

WORK SPACE

ANSWER _____

2 A video game system has 6 1/4 GB of free space. A new game update uses 2 3/4 GB. Estimate how much space will be left, then find the exact amount.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Estimate, then solve: 6 1/8 - 2 6/8. Explain why you need to regroup.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Fix-It

GRADE 4 · 4.CE.3.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate, then find the exact sum. Simplify. 3/8 + 4/8	**Estimate: about 1. Exact sum: 7/8**
2	Estimate, then find the exact difference. Simplify. 11/10 - 3/10	**Estimate: about 1/2. Exact difference: 4/5**
3	Estimate, then find the exact sum. Simplify. 1 3/4 + 2 2/4	**Estimate: about 4. Exact sum: 4 1/4**
4	Estimate, then find the exact sum. Simplify. 5/6 + 9/6	**Estimate: about 2 1/2. Exact sum: 2 1/3**
5	Estimate, then find the exact difference. Simplify. 4 1/5 - 2 4/5	**Estimate: about 1. Exact difference: 1 2/5**
6	Estimate, then find the exact difference. Simplify. 17/12 - 5/12	**Estimate: about 1. Exact difference: 1**

PART 2 · APPLY IT

1. **4 3/10 hours** An estimate is about 4 hours. Add the whole numbers and the tenths, then rename 13/10 as 1 3/10.
2. **3 1/2 GB** An estimate is about 3 GB. Regroup 6 1/4 as 5 5/4, then subtract 2 3/4.

CHALLENGE

About 3. I regrouped 6 1/8 as 5 9/8 because 1/8 is less than 6/8. The difference is 3 3/8.

Accept reasonable benchmark estimates that are supported by the student's rounding choices. Exact answers should be simplified, though equivalent fraction forms may be accepted when the value is correct.