LESSON MAKER PRO

Fraction Trail Mix

Add, subtract, and check fractions with unlike denominators.

GRADE 5 · 5.NOS.C.8

5.NOS.C.8 "Add and subtract fractions with unlike denominators. Estimate sums and differences by reasoning about benchmark numbers and assess reasonableness of answers (e.g., 2/3 + 3/4 will be more than 1 because both fractions are greater than 1/2)..."

NAME _____ DATE _____

FIND A COMMON DENOMINATOR

To add or subtract fractions with unlike denominators, rewrite them as equivalent fractions with the same denominator. Then add or subtract the numerators, keep the denominator, and check whether your answer makes sense using a benchmark such as 1/2 or 1.

WORKED EXAMPLE

Find 1/4 + 2/3.

1. Rewrite the fractions: 1/4 = 3/12 and 2/3 = 8/12.
2. Add: 3/12 + 8/12 = 11/12.
3. Check: Since 2/3 is greater than 1/2, the sum should be greater than 3/4.

Answer: 11/12

PRACTICE 6 problems

1 Find 1/3 + 1/6.

ANSWER _____

2 Find 3/4 - 1/8.

ANSWER _____

3 Find 2/5 + 3/10.

ANSWER _____

4 Find 5/6 - 1/4.

ANSWER _____

5 Find 3/8 + 5/12.

ANSWER _____

6 Find 7/10 - 3/8.

ANSWER _____

APPLY IT Show your work

1 You bike 2/5 mile to a park and 1/3 mile along a trail in the park. How far do you bike in all?

WORK SPACE

ANSWER _____

2 You have 7/8 yard of ribbon to decorate a backpack. You use 1/3 yard. How much ribbon is left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Find 7/12 + 5/8. In two sentences, give the sum and explain why it is reasonable using 1/2 as a benchmark.

WORK SPACE AND ANSWER

ANSWER KEY

Fraction Trail Mix

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 1/3 + 1/6.	**1/2**
2	Find 3/4 - 1/8.	**5/8**
3	Find 2/5 + 3/10.	**7/10**
4	Find 5/6 - 1/4.	**7/12**
5	Find 3/8 + 5/12.	**19/24**
6	Find 7/10 - 3/8.	**13/40**

PART 2 · APPLY IT

1. **11/15 mile** Rewrite 2/5 as 6/15 and 1/3 as 5/15. Add to get 11/15 mile.
2. **13/24 yard** Rewrite 7/8 as 21/24 and 1/3 as 8/24. Subtract to get 13/24 yard.

CHALLENGE

7/12 + 5/8 = 29/24, or 1 5/24. Both fractions are greater than 1/2, so a sum greater than 1 is reasonable.

Accept equivalent fractions and mixed numbers. For the challenge, accept any correct two-sentence explanation that uses 1/2 to show why the sum is greater than 1.