LESSON MAKER PRO

Make a Whole

Add and subtract fractions using whole-number strategies

GRADE 5 · 5.NOS.C.8.b

5.NOS.C.8.b "Apply and extend whole number addition and subtraction strategies (e.g. counting on, making a whole, partial sums, compensation, properties of operations..."

NAME _____ DATE _____

THE BIG IDEA

To add or subtract fractions with different denominators, rename them as equal-size parts. When adding, you can take part of one fraction to make the other fraction a whole, then add what is left.

WORKED EXAMPLE

Find 5/6 + 3/4 by making a whole.

1. 5/6 + 1/6 = 1, so take 1/6 from 3/4.
2. 3/4 = 9/12 and 1/6 = 2/12.
3. 9/12 - 2/12 = 7/12.
4. 1 + 7/12 = 1 7/12.

Answer: 1 7/12

PRACTICE 6 problems

1 Find 7/10 + 2/5.

ANSWER _____

2 Find 11/12 - 1/3.

ANSWER _____

3 Find 1 1/4 + 2/3.

ANSWER _____

4 Find 2 - 5/8.

ANSWER _____

5 Find 3/5 + 7/10.

ANSWER _____

6 Find 1 2/3 - 5/6.

ANSWER _____

APPLY IT Show your work

1 A gaming club has 2 1/4 hours to play. It spends 1 2/3 hours on its first game. How much time is left?

WORK SPACE

ANSWER _____

2 Kai uses 3/8 meter of colorful tape to decorate one notebook and 5/12 meter to decorate another. How much tape does Kai use in all?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Find the missing number: ___ + 7/12 = 2 1/3. Explain how counting on from 7/12 helps.

WORK SPACE AND ANSWER

ANSWER KEY

Make a Whole

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 7/10 + 2/5.	**1 1/10**
2	Find 11/12 - 1/3.	**7/12**
3	Find 1 1/4 + 2/3.	**1 11/12**
4	Find 2 - 5/8.	**1 3/8**
5	Find 3/5 + 7/10.	**1 3/10**
6	Find 1 2/3 - 5/6.	**5/6**

PART 2 · APPLY IT

1. **7/12 hour** Subtract 1 2/3 from 2 1/4. Rename the fractions in twelfths to get 2 3/12 - 1 8/12 = 7/12 hour.
2. **19/24 meter** Rename the fractions in twenty-fourths, then add 9/24 + 10/24 = 19/24 meter.

CHALLENGE

1 3/4. Count on 5/12 to reach 1, then 1 1/3 more to reach 2 1/3. The total added is 1 3/4.

Accept equivalent fractions or mixed numbers for correct answers. For the challenge, accept a correct subtraction explanation instead of counting on.