Name _____ Date _____

Adding and Subtracting Fractions with Unlike Denominators: Make the Pieces Match

Directions: Fractions can be added or subtracted when their pieces are the same size. Rename the fractions so they share a denominator, then add or subtract the numerators. To type a fraction, use a slash, like 3/4. To type a mixed number, put a space after the whole number, like 2 1/4.

1. Add. One denominator is a multiple of the other, so only one fraction needs a new name. Type the sum as a fraction in simplest form, like 3/5.

1/4 + 3/8 = _____

2. To add 2/3 + 1/5, you can rename both fractions as fifteenths. Which pair of fractions has the same values as 2/3 and 1/5?

A. 6/15 and 5/15

B. 10/15 and 3/15

C. 10/15 and 5/15

D. 2/15 and 1/15

3. Subtract. Both fractions need new names this time. Write the difference as a fraction in simplest form, with a slash, as in 4/9.

5/6 − 3/8 = _____

4. Rename both fractions as eighteenths. Then find the numerator of the difference.

8/9 − 1/6 = ?/18

_____

5. Two students add 3/4 + 1/6.

- Jalen adds the numerators and then the denominators. He writes 4/10.
- Thea renames the fractions as 9/12 and 2/12. She writes 11/12.

Which student is right, and why?

A. Thea, because 3/4 = 9/12 and 1/6 = 2/12, and 9/12 + 2/12 = 11/12.

B. Neither, because the only common denominator for fourths and sixths is 24.

C. Both, because 4/10 and 11/12 name the same amount.

D. Jalen, because 3 + 1 = 4 and 4 + 6 = 10.

6. Find the sum. Your answer must be a fraction in simplest form, typed with a slash, such as 5/7.

5/12 + 1/4 = _____

7. Which of these are equal to $1/2 + 3/8$? Select the two that are.

☐ A. $7/8$ ☐ B. $4/10$ ☐ C. $4/8 + 3/8$

☐ D. $1/8 + 3/8$ ☐ E. $4/8$

8. This sum is greater than 1. Type it as a mixed number in simplest form, with a space after the whole number, like 3 1/6.

$7/10 + 3/4 =$ _____

9. Add these mixed numbers. Type the sum as a mixed number in simplest form, like 5 2/3.

$3\ 1/2 + 1\ 1/5 =$ _____

10. Subtract these mixed numbers.

$6\ 1/4 - 2\ 2/3$

A. 3 7/12 B. 4 7/12 C. 4 5/12 D. 3 5/12