Name ..... Date .....

Rational Numbers: Adding and Subtracting

Find each sum or difference. Reduce, and write the answer as a mixed number or whole number.

$$\begin{array}{r} \frac{-5}{6} = \frac{-20}{24} \\ +\frac{3}{8} = \frac{9}{24} \\ \hline \frac{-11}{24} \end{array}$$

1. Find the lowest common denominator (LCD).
2. Write the equivalent fractions using the LCD.
3. Add or subtract the numerators. Write the sum or difference over the LCD. Reduce if necessary.

TIP: Pay close attention when adding or subtracting negative fractions.

1. $\begin{array}{r} \frac{1}{6} \\ +\frac{3}{4} \\ \hline \end{array}$ **2.** $\begin{array}{r} \frac{-8}{16} \\ +\frac{3}{4} \\ \hline \end{array}$ **3.** $\begin{array}{r} \frac{2}{3} \\ -\frac{1}{12} \\ \hline \end{array}$ **4.** $\begin{array}{r} \frac{3}{4} \\ +\frac{5}{6} \\ \hline \end{array}$

5. $\begin{array}{r} \frac{-2}{5} \\ -\frac{3}{4} \\ \hline \end{array}$ **6.** $\begin{array}{r} \frac{3}{4} \\ -\frac{4}{7} \\ \hline \end{array}$ **7.** $\begin{array}{r} \frac{5}{8} \\ +\frac{5}{12} \\ \hline \end{array}$ **8.** $\begin{array}{r} \frac{-7}{10} \\ -\frac{1}{2} \\ \hline \end{array}$

9. $\frac{-11}{12} - \frac{-5}{3} =$ **10.** $\frac{8}{14} - \frac{-4}{6} =$ **11.** $\frac{-1}{8} - \frac{-5}{12} =$ **12.** $\frac{-2}{3} + \frac{7}{9} =$

13. $\frac{5}{6} + \frac{7}{10} =$ **14.** $\frac{4}{5} + \frac{-3}{8} =$ **15.** $\frac{7}{8} - \frac{-5}{6} =$ **16.** $\frac{-8}{12} - \frac{2}{3} =$

NAME _____ DATE _____ PERIOD _____

Skills Practice

Multiplying Rational Numbers

Find each product. Write in simplest form.

1. $\frac{1}{3} \cdot \left(-\frac{1}{4}\right)$
2. $-\frac{2}{5} \cdot \frac{6}{7}$
3. $\frac{2}{7} \cdot \frac{3}{11}$
4. $\frac{3}{13} \cdot \frac{2}{5}$
5. $\frac{2}{9} \cdot \frac{3}{5}$
6. $\frac{3}{11} \cdot \frac{5}{9}$
7. $-\frac{1}{4} \cdot \frac{4}{9}$
8. $\frac{3}{5} \cdot \frac{15}{18}$
9. $\frac{3}{4} \cdot \frac{2}{5}$
10. $-\frac{1}{6} \cdot \left(-\frac{4}{7}\right)$
11. $\frac{5}{14} \cdot \left(-\frac{7}{9}\right)$
12. $-\frac{2}{3} \cdot \frac{9}{10}$
13. $\frac{5}{16} \cdot 4$
14. $5\frac{1}{2} \cdot \frac{2}{11}$
15. $-3 \cdot \left(-\frac{8}{9}\right)$
16. $-\frac{3}{5} \cdot 6\frac{2}{3}$
17. $-12\frac{2}{3} \cdot 7\frac{1}{2}$
18. $-\frac{5}{36} \cdot \left(-\frac{9}{25}\right)$
19. $8\frac{4}{5} \cdot 2\frac{5}{10}$
20. $3\frac{1}{3} \cdot 9\frac{3}{4}$
21. $-6\frac{2}{5} \cdot \left(-2\frac{2}{9}\right)$
22. $\frac{7}{45} \cdot \frac{9}{42}$

Find each quotient. Write in simplest form.

9. $\frac{1}{3} \div \frac{7}{18}$
10. $-\frac{2}{5} \div \frac{4}{25}$
11. $-5 \div \frac{1}{7}$
12. $\frac{2}{3} \div \frac{2}{3}$
13. $\frac{4}{5} \div \left(-\frac{1}{15}\right)$
14. $\frac{19}{20} \div \frac{4}{5}$
15. $3 \div \frac{1}{4}$
16. $-15 \div \frac{1}{2}$
17. $\frac{4}{9} \div \frac{5}{12}$
18. $\frac{7}{10} \div \left(-\frac{4}{5}\right)$
19. $\frac{7}{12} \div \left(-1\frac{1}{6}\right)$
20. $1\frac{5}{8} \div \frac{5}{8}$
21. $12\frac{3}{5} \div 2\frac{7}{10}$
22. $-\frac{3}{11} \div \frac{6}{22}$
23. $\frac{1}{8} \div \frac{15}{16}$
24. $-12\frac{4}{5} \div \left(-1\frac{1}{15}\right)$
25. $1\frac{12}{13} \div \frac{25}{26}$
26. $-7\frac{1}{8} \div 2\frac{1}{5}$