Name: _____ Date: _____

6.6 Applying Fraction Operations

MathLinks 8, pages 230–235

Key Ideas Review

1. Circle the correct response to complete each statement.
   a) You need to decide which (operation/manipulation) to perform on fractions to solve problems.
   b) Some fraction problems can involve the (computation/order) of operations.
2. Number the statements to put the operations in the correct order.

_____ Add and subtract in order from left to right.
_____ Brackets
_____ Multiply and divide in order from left to right.

Practise and Apply

3. Circle the first step in calculating the answer, then solve.
   a) $\frac{5}{6} - \frac{1}{3} \times \frac{3}{4}$
   b) $3\frac{1}{2} \div \frac{3}{4} - \left(1\frac{1}{2} + \frac{5}{6}\right)$
   c) $\frac{7}{8} + \frac{2}{3} - \frac{1}{4}$
   d) $1\frac{1}{2} \times \frac{1}{3} \div \frac{2}{3}$

4. Calculate. Show your thinking.
   a) $3 \div \frac{3}{4} + 5 \times \frac{1}{2}$
   b) $\frac{2}{3} + \frac{1}{6} \times 1\frac{2}{3}$
   c) $\frac{3}{4} \times (12 - 8) - \frac{3}{8}$
   d) $3\frac{7}{10} \div \left(1\frac{3}{10} + 1\frac{9}{10}\right)$

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5. Tracy earns $12 an hour as a cashier in a grocery store. One week she worked 8 hours a day for 5 days. One of these days was a holiday, for which she earned time-and-a-half. How much did Tracy earn that week?

6. Graham saved $1\frac{1}{2}$ bags of Halloween candy to share with two friends. Graham's father asked him to save $\frac{1}{4}$ of a bag for his younger brother. If Graham and his friends each get equal amounts of what is left, how much candy will each of them get?

7. Add one pair of brackets to the left side of each equation to make it true.

a) $\frac{1}{2} + \frac{5}{8} \times \frac{4}{3} + \frac{3}{2} = 3$

b) $1\frac{1}{4} - \frac{1}{8} \div 1\frac{1}{2} - \frac{3}{4} = 1\frac{1}{12}$

c) $\frac{13}{5} - \frac{3}{10} + \frac{7}{10} \div \frac{1}{2} - \frac{3}{5} = 0$

d) $1\frac{1}{4} \times 2\frac{2}{5} \div 2\frac{1}{6} - 1\frac{1}{3} = \frac{2}{39}$

8. Here is a way of using four 3s and the order of operations to write an expression that equals 5.

$$3 - \frac{3}{3} + 3 = 5$$

Use four 3s and the order of operations to write expressions with each of the following values.

a) 0

b) 1

c) 2

d) 3

9. Lake Huron has about 2000 km of shoreline. Lake Superior's shoreline is $\frac{1}{2}$ plus $\frac{1}{5}$ of that distance. Write an expression to determine the length of shoreline in Lake Superior, then solve.