NTID

Mrs. Lafferty

7th Grade

Day 6

Using Multiplication to Divide by a Fraction

➤ **Write the missing digits in the boxes to make each equation true.**

1. $\frac{1}{2} \div \frac{2}{3} = \frac{1}{2} \times \frac{\square}{2} = \frac{3}{\square}$

2. $\frac{4}{5} \div \frac{1}{4} = \frac{4}{5} \times \frac{4}{\square} = \frac{\square}{\square}$

3. $\frac{2}{5} \div \frac{3}{4} = \frac{2}{5} \times \frac{\square}{\square} = \frac{\square}{15}$

4. $\frac{5}{6} \div \frac{5}{12} = \frac{5}{6} \times \frac{\square}{\square} = \frac{\square}{30} = 2$

5. $\frac{3}{4} \div \frac{5}{7} = \frac{3}{4} \times \frac{\square}{\square} = \frac{\square}{\square}$

6. $1\frac{1}{3} \div \frac{3}{7} = \frac{\square}{3} \times \frac{7}{\square} = \frac{\square}{\square}$

7. $4\frac{\square}{2} \div \frac{2}{5} = \frac{9}{2} \times \frac{\square}{\square} = \frac{\square}{\square}$

8. $3\frac{1}{2} \div \frac{\square}{8} = \frac{7}{\square} \times \frac{8}{7} = \frac{\square}{\square} = \square$

9. $1\frac{2}{3} \div 2\frac{1}{4} = \frac{\square}{3} \times \frac{\square}{9} = \frac{\square}{\square}$

10. $3\frac{3}{5} \div 1\frac{3}{\square} = \frac{18}{\square} \times \frac{4}{7} = \frac{\square}{\square}$

11. Write a word problem that could be solved by the equation in problem 8.

Day 7

Understanding Positive and Negative Numbers

1. The points on the number line are opposite numbers. The tick marks represent intervals of 1 unit.

Label 0 at the correct spot on the number line.

Label the point plotted to the right of 0.

Label the point plotted to the left of 0.

2. Use this list of numbers to answer the following questions:

$0, 4, -2, \frac{2}{3}, -1.8, 16, 3.2, -\frac{5}{4}$

Which numbers are rational numbers that are not integers?

Of the remaining numbers, which are integers but not whole numbers?

Of the remaining numbers, which are whole numbers?

3. Use the following terms to complete the following statements: *integers, rational numbers,* and *whole numbers*. Use each term only once.

The counting numbers and zero are _____.

The counting numbers and their opposites, along with zero, are _____.

Integers and the decimal equivalents of fractions are _____.

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Day 7

Understanding Positive and Negative Numbers *continued*

4 Plot and label 4, −3, 1, and their opposites on the number line.

5 If several points are graphed on a number line, is the point that is the farthest from 0 always the greatest? Explain.

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Day 8

Comparing Positive and Negative Numbers

➤ **Write < or > to make each comparison true.**

1. $7 \bigcirc 10$
2. $7 \bigcirc -10$
3. $-7 \bigcirc -10$
4. $\frac{2}{3} \bigcirc -1\frac{2}{3}$
5. $-50 \bigcirc 0.3$
6. $-12 \bigcirc -35$
7. $-5 \bigcirc 4.5$
8. $\frac{1}{2} \bigcirc -80$
9. $-\frac{1}{4} \bigcirc -1.4$

➤ **Write each set of numbers in order from least to greatest.**

10. $5, -2, -1, 4$

    _____

11. $3.4, 7, -3.5, -3$

    _____

12. $-2.1, -2, -3, 0$

    _____

13. $-\frac{3}{4}, -2, -\frac{1}{4}, 2$

    _____

14. $5, 0, -6, -0.1$

    _____

15. $7.5, -200, -1.5, -8$

    _____

16. $\frac{1}{2}, -\frac{1}{2}, -\frac{1}{3}, \frac{1}{3}$

    _____

17. $1.2, -2.1, -21, 0.12$

    _____

18. $0.1, -0.2, 0.55, -0.31$

    _____

19. Describe how to determine which of two negative numbers is greater. Give an example.

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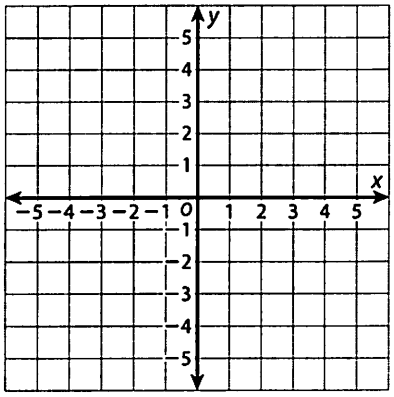
Day 9

Understanding the Four-Quadrant Coordinate Plane

➤ **For problems 1–6, plot and label each point in the coordinate plane. Name the quadrant or axis where the point is located.**



1. $A(-3, -2)$
2. $B(4, -4)$
3. $C(2, 3)$
4. $D(-2, 4)$
5. $E(3, -3)$
6. $F(4, 0)$

7. If point E above is reflected across the x-axis, what would be the coordinates of the reflection? Explain.

8. Imagine that one of the points given in problems 1–6 has been reflected. The reflection is in Quadrant II. What are the possible coordinates of the reflected point? Explain.

9. Bradley says that if point B is reflected across the y-axis and its reflection is then reflected across the x-axis, the result is point D. Is Bradley correct? Explain.

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Day 10

Writing and Interpreting Algebraic Expressions

➤ **Write an algebraic expression for each word phrase or situation.**

1. 12 more than 8.2 times a number n

_____

2. 3 less than the quotient of 18 and a number m

_____

3. 5.6 times the sum of 4 and a number p

_____

4. the quotient of 2 and a number x, times 3

_____

5. Five friends split the cost of parking at an amusement park. Each of them also buys a $30 ticket. Write an algebraic expression that represents the amount of money each friend spends. Identify any variables.

_____

6. A movie theater is open x hours Monday through Thursday and y hours Friday through Sunday. Write an algebraic expression that represents the number of hours per week the theater is open.

_____

➤ **Interpret the meaning of the algebraic expression in each problem.**

7. Andrew writes the algebraic expression $2s + 2.79$ to represent the cost of his lunch. He bought 2 sandwiches and a large drink. Identify any variables, coefficients, and terms in the expression. Tell what each represents.

Day 10

Writing and Interpreting Algebraic Expressions *continued*

8 A teacher writes the algebraic expression $24c + 5m + 19.99$ to represent the cost of supplies she purchased for her classroom. She bought 24 packages of colored pencils, 5 packages of markers, and a beanbag chair. Identify any variables, coefficients, and terms in the expression. Tell what each represents.

9 Write a situation that could be represented by the algebraic expression $3s + 2.15$.

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