

Lesson
3.1**Enrichment and Extension****Letter Values**

Each letter of the alphabet has been assigned an integer value. Use the values to answer the questions.

Use your knowledge of integers to answer the questions.

1. Find two pairs of letters that are assigned opposite values of one another. What is the sum of each pair?
2. Which integer is neither positive nor negative? Which letter has been assigned this value?
3. What is the total combined value of the letters MATH?
4. Write your first name.
 - a. Which letters in your first name are assigned values that are positive integers? Which letters are assigned values that are negative integers?
 - b. What is the combined total value of the letters in your first name?
 - c. What is the opposite of the value in part (b)?
5. Find the combined total value of the letters used to spell your last name.
 - a. What is the opposite of the value?
 - b. Graph the value and its opposite on a number line. How far are the two values from one another on the number line?
6. Graph the letters used to spell your last name on a number line according to their values. Do the letters still spell your last name once they are graphed on the number line?
7. Write a word using only letters that have been assigned values that are negative integers.
8. Write a word using letters whose total combined value is 5 or -5.

$A = 13$

$B = 12$

$C = 11$

$D = 10$

$E = 9$

$F = 8$

$G = 7$

$H = 6$

$I = 5$

$J = 4$

$K = 3$

$L = 2$

$M = 1$

$N = 0$

$O = -1$

$P = -2$

$Q = -3$

$R = -4$

$S = -5$

$T = -6$

$U = -7$

$V = -8$

$W = -9$

$X = -10$

$Y = -11$

$Z = -12$

Lesson
3.3**Enrichment and Extension****Fraction Game**

Cut 10 index cards in half. Divide the cut index cards between you and a partner. Follow the rules below to play a game.

- Write a fraction or mixed number on a piece of index card that is between the two decimals given.
- Compare your number with your friend's number. The person with the larger number gets both index cards. If the numbers are equivalent, each player writes a different fraction or mixed number. Repeat until there is not a tie.
- The person with the most index cards after the last set of numbers is the winner.

1. $-0.5, 1.33$ **2.** $0.1, -1.86$ **3.** $-1.2, -0.6$ **4.** $-1.75, -2.25$ **5.** $-4.77, -12.42$ **6.** $-6.8, -5.71$ **7.** $-4.63, -5.38$ **8.** $-10.5, -9.62$ **9.** $-20.5, -15.33$ **10.** $-62.55, -70.45$

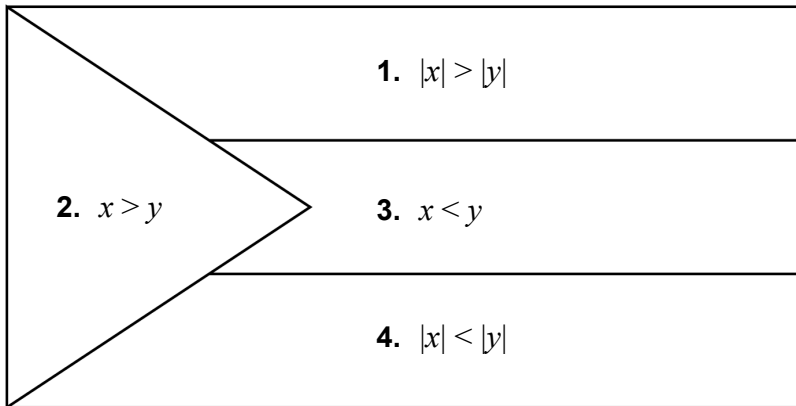
Lesson 3.4

Enrichment and Extension

Flags

Copy the flag shown. Assume $x > 0$ and $y < 0$. Tell whether the statement is *always*, *sometimes*, or *never* true. Use the table to color the portion of your flag that contains the exercise.

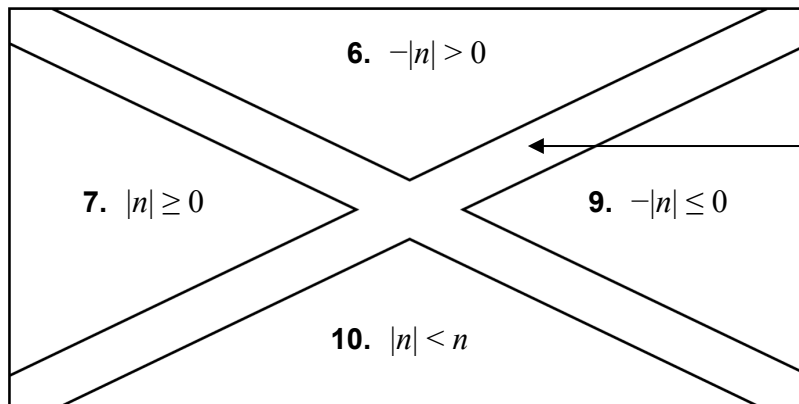
Answer	Color
Always	Black
Sometimes	Aqua
Never	Yellow



5. Which country does the flag represent?

Copy the flag shown. Tell whether the possible values of n are *all integers*, *all positive integers*, *all negative integers*, or *no integers*. Use the table to color the portion of your flag that contains the exercise.

Answer	Color
All integers	Black
All positive integers	Red
All negative integers	Yellow
No integers	Green



11. Which country does the flag represent?