

MODULE
1**Integers****Challenge**

1. The table below shows in both degrees Celsius and degrees Fahrenheit the freezing and boiling points of pure ethanol.

Ethanol	Celsius (°C)	Fahrenheit (°F)
Freezing Point	-114	-173
Boiling Point	78	173

On a separate sheet of paper, draw two number lines without increments. On one, divide the line into even increments, then plot and label the two Celsius temperatures. On the other line, first plot and label the two Fahrenheit temperatures so that they align with the two Celsius temperatures on the first number line. Then divide the second number line into even increments. What do you notice about the size of the Fahrenheit and Celsius degrees?

2. The following table shows average planting depths and flowering heights for several bulbs.

Bulb	Planting Depth (in.)	Height (in.)
Miniature Iris	3	5
Hyacinth	6	9
Trumpet Daffodil	6	18
Peacock Tulip	6	8
Perennial Tulip	7	21
Daffodil	6	12
Bluebell	4	12

- a. Write the depths as integers. _____
- b. List those integers from least to greatest.
- _____
- c. Write the heights as integers. _____
- d. List those integers from least to greatest.
- _____
- e. Identify any opposites on your list.
- _____

15. Sample answer: The absolute value of a number is the number's distance from 0 on the number line. Since the distance is positive or 0, absolute value is always positive or 0. For example $|-5| = 5$ and $|5| = 5$.

Reading Strategies

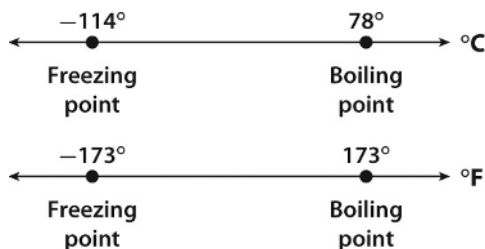
1. above sea level, scored
2. loss, below sea level
3. rising 17 feet; 17 or +17
4. 5 feet below the surface, -5
5. losing 6 points; -6
6. paying a fee of \$35; -35
7. penalty of 5 yards; -5
8. adding 32 MB; +32 or 32
9. award of \$50; +50 or 50
10. crediting \$60; +60 or 60

Success for English Learners

1. -5, 5
2. 6
3. 4
4. 3
5. 0
6. 2
7. 2
8. They both have an absolute value of 2.

MODULE 1 Challenge

1.



The Celsius degree is larger, or the Fahrenheit degree is smaller.

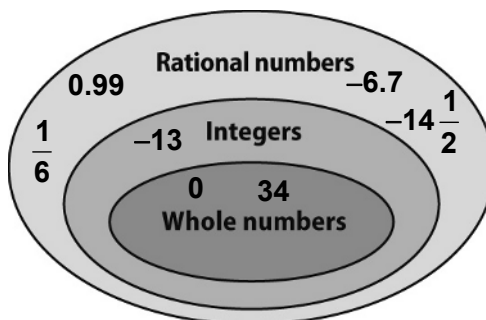
2. a. -3, -6, -6, -6, -7, -6, -4
b. -7, -6, -6, -6, -6, -4, -3
c. 5, 9, 18, 8, 21, 12, 12
d. 5, 8, 9, 12, 12, 18, 21
e. none

MODULE 2 Rational Numbers

LESSON 2-1

Practice and Problem Solving: A/B

1. $\frac{3}{10}$
2. $\frac{23}{8}$
3. $-\frac{5}{1}$
4. $\frac{16}{1}$
5. $-\frac{7}{4}$
6. $-\frac{9}{2}$
7. $\frac{3}{1}$
8. $\frac{11}{100}$
- 9-15.



9. integers, rational numbers
10. rational numbers
11. whole numbers, integers, rational numbers
12. rational numbers
13. rational numbers
14. whole numbers, integers, rational numbers
15. rational numbers

Practice and Problem Solving: C

1. $-\frac{4}{1}$
2. Possible answer: $\frac{0}{5}$
3. $\frac{16}{3}$