



Objective: REVIEW

## Rational Numbers, Compare and Order Rational Numbers

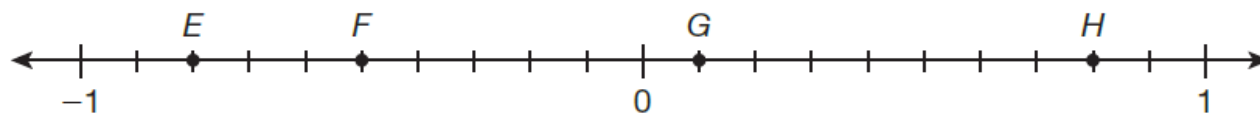
A **rational number** is a number that can be expressed as the ratio of two integers in the form  $\frac{a}{b}$ , where  $b$  is not equal to 0. A rational number can be positive or negative. The set of rational numbers includes integers, fractions, mixed numbers, percents, terminating decimals, and repeating decimals. Some examples of rational numbers are shown below.

8%       $\frac{4}{5}$       0.35       $1\frac{3}{8}$       -7       $1.\bar{6}$

All rational numbers can be located on a number line. A number line will help you compare and order rational numbers. To compare numbers, you can use the symbols **> (is greater than)**, **< (is less than)**, or **= (is equal to)**. The expression  $p > q$  ( $p$  is greater than  $q$ ) means that  $p$  is located to the right of  $q$  on a number line. The expression  $p < q$  ( $p$  is less than  $q$ ) means that  $p$  is located to the left of  $q$  on a number line.



Use the number line for questions 1 and 2.



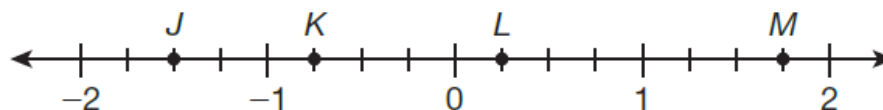
1. Which point on the number line represents  $-0.5$ ?

- A. point  $E$
- B. point  $F$
- C. point  $G$
- D. point  $H$

2. Which rational number is represented by point  $E$ ?

- A.  $-\frac{8}{10}$
- B.  $-0.5$
- C.  $\frac{1}{10}$
- D.  $0.8$

Use the number line for questions 3 and 4.



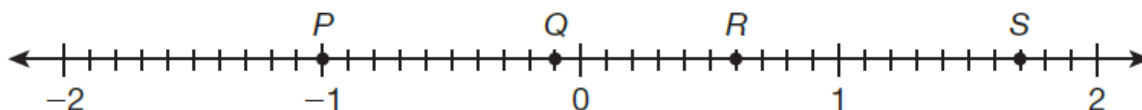
3. Which point on the number line represents  $\frac{1}{4}$ ?

- A. point  $J$
- B. point  $K$
- C. point  $L$
- D. point  $M$

4. Which rational number is represented by point  $J$ ?

- A.  $-1\frac{3}{4}$
- B.  $-1\frac{1}{2}$
- C.  $-\frac{3}{4}$
- D.  $-\frac{1}{2}$

Use the number line for questions 5 and 6.



- |   |   |
|---|---|
| <p>5. Which point on the number line represents an integer?</p> <p>A. point <math>P</math></p> <p>B. point <math>Q</math></p> <p>C. point <math>R</math></p> <p>D. point <math>S</math></p> | <p>6. Which rational number is represented by point <math>R</math>?</p> <p>A. <math>-1.6</math></p> <p>B. <math>-0.6</math></p> <p>C. <math>0.6</math></p> <p>D. <math>1.6</math></p> |
|---|---|

7. What is the opposite of  $\frac{3}{8}$ ?

- A. 38
- B.  $\frac{8}{3}$
- C.  $-\frac{3}{8}$
- D.  $-\frac{8}{3}$

8. Use the sets counting numbers, integers, and rational numbers to answer Part A.

A. Name the set or sets that each of the numbers below belongs to.

$-4$ ,  $\frac{5}{8}$ ,  $3$ , and  $-2.9$

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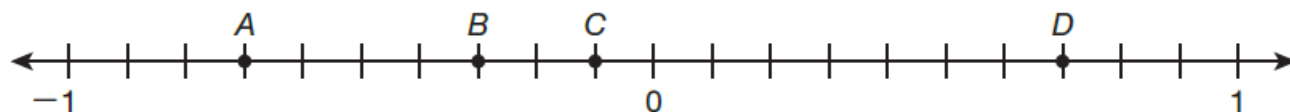
B. Explain why a mixed number is a rational number.

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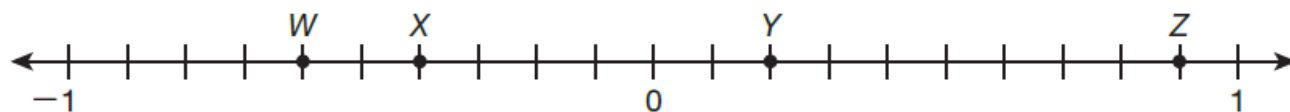
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9. Draw a line from each point to its location.



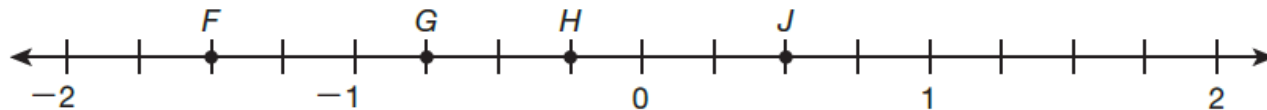
- |    |           |   |   |      |
|----|-----------|---|---|------|
| A. | point $A$ | • | • | 0.7  |
| B. | point $B$ | • | • | -0.1 |
| C. | point $C$ | • | • | -0.7 |
| D. | point $D$ | • | • | -0.3 |

10. Circle every rational number that is represented by a letter on the number line below.



- A. -0.7
- B. -0.6
- C. -0.5
- D. -0.4
- E. -0.2
- F. 0.1
- G. 0.2
- H. 0.9

11. Select True or False for each statement.



- A. Point  $F$  is located at  $-1\frac{1}{2}$ .       True     False
- B. Point  $G$  is located at  $\frac{3}{4}$ .               True     False
- C. Point  $H$  is located at  $\frac{1}{4}$ .               True     False
- D. Point  $J$  is located at  $\frac{1}{2}$ .               True     False



1. Which list orders the integers from least to greatest?

- A.  $-5, 3, -2, 4$
- B.  $-2, 3, 4, -5$
- C.  $-5, -2, 3, 4$
- D.  $-2, -5, 3, 4$

2. Which sentence is true?

- A.  $5\frac{1}{3} < 5\frac{3}{8}$
- B.  $4\frac{5}{8} > 4\frac{2}{3}$
- C.  $6\frac{3}{5} = 6\frac{7}{10}$
- D.  $7\frac{3}{10} > 7\frac{1}{3}$

3. Which list orders the fractions from least to greatest?

- A.  $\frac{1}{2}, \frac{2}{5}, \frac{3}{4}, \frac{9}{20}$
- B.  $\frac{3}{4}, \frac{1}{2}, \frac{9}{20}, \frac{2}{5}$
- C.  $\frac{1}{2}, \frac{3}{4}, \frac{2}{5}, \frac{9}{20}$
- D.  $\frac{2}{5}, \frac{9}{20}, \frac{1}{2}, \frac{3}{4}$

4. The table shows the distances that four friends live from school.

Distances from School

Student	Distance (in miles)
Teri	$4\frac{3}{4}$
Josie	$4\frac{7}{8}$
Katie	$4\frac{9}{10}$
Ramona	$4\frac{4}{5}$

Which lists the students in order from the greatest distance from school to the least distance?

- A. Katie, Ramona, Teri, Josie
- B. Katie, Josie, Ramona, Teri
- C. Teri, Ramona, Josie, Katie
- D. Ramona, Teri, Katie, Josie

5. The table shows the elevations of various places around the world, in feet below sea level.

**Elevations**

Place	Elevation (in feet below sea level)
Caspian Sea	92
Dead Sea	1,348
Death Valley	282
Valdes Peninsula	131

Which place has the lowest elevation?

- A. Caspian Sea
- B. Dead Sea
- C. Death Valley
- D. Valdes Peninsula

6. Which lists the decimals from greatest to least?

- A. 3.917, 39.17, 39.175, 39.7
- B. 39.175, 39.17, 3.917, 39.7
- C. 3.917, 39.175, 39.17, 39.7
- D. 39.7, 39.175, 39.17, 3.917

7. Frank has a bank account balance of  $-\$45.30$ . Bruce has a bank account balance of  $-\$55$ . Which of the following statements is true?

- A. Frank's debt is less than Bruce's.
- B. Bruce's debt is less than Frank's.
- C. Frank and Bruce have the same debt.
- D. Neither Frank nor Bruce have a debt.

8. The table shows the daily high temperatures in Anchorage, Alaska, over a 5-day period in December.

**Daily High Temperatures**

Day	High Temperature
Monday	$-10^{\circ}\text{F}$
Tuesday	$0^{\circ}\text{F}$
Wednesday	$-4^{\circ}\text{F}$
Thursday	$-6^{\circ}\text{F}$
Friday	$2^{\circ}\text{F}$

- A. On which days was the temperature the warmest and the coldest?

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- B. Order the temperatures from coldest to warmest.

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9. Select True or False for each statement.

A.  $3\frac{1}{3} > 3\frac{1}{2}$        True    False

B.  $4\frac{7}{8} < 4\frac{3}{10}$        True    False

C.  $5\frac{2}{3} > 5\frac{1}{4}$        True    False

D.  $6\frac{1}{8} = 6\frac{2}{16}$        True    False

10. Circle every list that shows the numbers in order from least to greatest.

A.  $-6, -2, 0, -1$

B.  $-7, -4, 1, 5$

C.  $-5, 7, 8, -9$

D.  $-8, -5, -2, 3$

11. Look at each list of numbers. Is the list of numbers in order from greatest to least?  
Select Yes or No.

A.  $\frac{1}{4}, \frac{2}{3}, \frac{4}{5}, \frac{9}{10}$        Yes    No

B.  $\frac{5}{6}, \frac{3}{10}, \frac{1}{4}, \frac{1}{8}$        Yes    No

C.  $\frac{17}{20}, \frac{3}{4}, \frac{1}{3}, \frac{3}{10}$        Yes    No

D.  $\frac{7}{8}, \frac{2}{5}, \frac{3}{4}, \frac{7}{20}$        Yes    No

12. The low temperature in Connecticut today is  $-17^{\circ}\text{C}$ . The low temperature in Indiana today is  $-14^{\circ}\text{C}$ . Select True or False for each statement.

A. The low temperature in Connecticut is less than the low temperature in Indiana.       True    False

B. The low temperature in Connecticut is greater than the low temperature in Indiana.       True    False

C. The low temperature in Indiana is less than the low temperature in Connecticut.       True    False

D. The low temperature in Indiana is greater than the low temperature in Connecticut.       True    False



LESSON SE 1c



Objective

Write the letter for each point in the correct box.



Below the number line are six boxes, each containing a letter: M, N, P, Q, R, and S.

Integer	Not an Integer

Circle every list that shows the numbers in order from least to greatest.

- A. -6, -2, 0, -1
- B. -7, -4, 1, 5
- C. -5, 7, 8, -9
- D. -8, -5, -2, 3

Look at each list of numbers. Is the list of numbers in order from greatest to least?  
Select Yes or No.

- A.  $\frac{1}{4}, \frac{2}{3}, \frac{4}{5}, \frac{9}{10}$        Yes    No
- B.  $\frac{5}{6}, \frac{3}{10}, \frac{1}{4}, \frac{1}{8}$        Yes    No
- C.  $\frac{17}{20}, \frac{3}{4}, \frac{1}{3}, \frac{3}{10}$        Yes    No
- D.  $\frac{7}{8}, \frac{2}{5}, \frac{3}{4}, \frac{7}{20}$        Yes    No