Date: _____

2.1 Comparing and Ordering Rational Numbers

***MathLinks 9*, pages 46–54**

Key Ideas Review

1. a) Circle the rational number(s).

2.1 $\quad -\frac{3}{2}$ $\quad \pi$ $\quad 3$ $\quad \sqrt{2}$ $\quad -55$

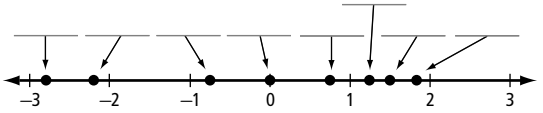
b) Circle the numbers that are equivalent to 3.

$-\frac{9}{3}$ $\quad 3.0$ $\quad -\left(\frac{-15}{3}\right)$ $\quad \sqrt{9}$ $\quad \frac{-21}{-7}$ $\quad \frac{3}{1}$

Choose from the following rational numbers to complete #2.

$\frac{3}{4}$ $\quad -2.1$ $\quad \frac{5}{4}$ $\quad \frac{0}{3}$ $\quad -\frac{3}{4}$ $\quad 1.8$ $\quad -\frac{14}{5}$ $\quad \frac{6}{4}$

2. a) Fill in the blanks to identify the rational numbers.

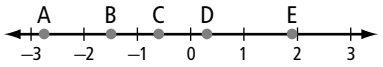


b) Circle the opposite numbers.

c) Which rational number lies between 0 and 1? _____

Check Your Understanding

3. Match each rational number to a point on the number line.



a) -0.6 _____

b) $-\frac{3}{2}$ _____

c) $-2\frac{3}{4}$ _____

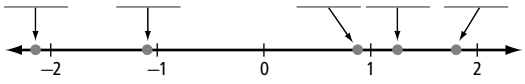
d) 1.9 _____

e) $0.\overline{3}$ _____

f) Explain your thinking.

4. a) Fill in each blank using the correct rational number from the list.

$\frac{7}{8}$ $\quad -2.2$ $\quad \frac{11}{6}$ $\quad -1.\overline{1}$ $\quad \frac{10}{8}$



b) Place the opposite of each number on the number line.

5. What is the opposite of each rational number?

a) $\frac{3}{2}$ _____ **b)** $-6.\overline{8}$ _____ **c)** $-2\frac{1}{5}$ _____

Date: _____

6. Compare $\frac{9}{8}$, 0.511, $-1\frac{2}{3}$, -1.7, and $\frac{6}{11}$.

a) Write the fractions in decimal form.

b) Write the numbers in ascending order.

7. Compare $\frac{5}{6}$, 0.7, $-\frac{12}{5}$, -2.1, and $-1\frac{3}{4}$.

a) Write the fractions in decimal form.

b) Write the numbers in descending order.

8. Express each fraction as an equivalent fraction.

a) $-\frac{3}{4}$ **b)** $-\frac{4}{6}$

c) $\frac{12}{8}$ **d)** $-\frac{5}{3}$

9. Write each rational number as an equivalent fraction.

a) $\frac{5}{-8}$ **b)** $\frac{-7}{-9}$

c) $\frac{-1}{4}$ **d)** $-\left(\frac{-8}{-7}\right)$

10. Circle the greater value in each pair.

a) $\frac{1}{3}$, $-\frac{1}{3}$ **b)** $-\frac{4}{5}$, $\frac{3}{5}$

c) $-1\frac{1}{6}$, $-1\frac{1}{3}$ **d)** $-\frac{3}{4}$, $-\frac{7}{8}$

11. Circle the smaller value in each pair.

a) $\frac{2}{3}$, $\frac{4}{5}$ **b)** $-\frac{5}{6}$, $-\frac{11}{2}$

c) $-\frac{5}{4}$, $-\frac{7}{4}$ **d)** $-2\frac{4}{5}$, $-2\frac{5}{6}$

12. Change each fraction to a decimal. Then, identify a decimal number between the given numbers.

a) $\frac{1}{4}$, $\frac{1}{8}$

b) $-\frac{2}{3}$, $-\frac{4}{5}$

13. The table lists the average low temperature of the coldest month in eight Canadian cities.

City	Average Low (°C)
Winnipeg	−23.6
Regina	−22.1
Edmonton	−17.0
Calgary	−15.7
Vancouver	0.1
Victoria	6.5
Whitehorse	−23.2
Yellowknife	−32.2

a) Write the temperatures in descending order.

b) What is the difference in temperature between Victoria and Calgary? Show your work.

14. Fill in each $\square$ with $>$, $<$, or $=$ to make each statement true. Show your thinking.

a) $-\frac{3}{4} \square -0.8$ **b)** $-\frac{5}{3} \square -\frac{11}{6}$

c) $-0.81 \square -\frac{4}{5}$ **d)** $-\left(\frac{-12}{-5}\right) \square -2.4$