2.1 Comparing and Ordering Rational Numbers Worksheet

1. Identify the rational numbers.

a) 17
$$\frac{5}{0}$$
 -3.606 $\sqrt{3}$ -8 $\frac{3}{4}$

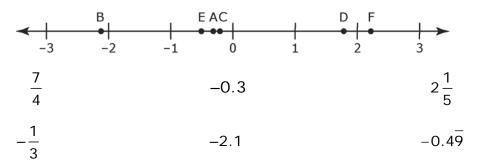
b)
$$-0.2$$
 $9.\overline{12}$ $\frac{0}{0}$ $-\frac{13}{4}$ $7.1234...$

2. Write the opposite of each rational number.

a) 9 **b)**
$$-\frac{23}{3}$$
 c) -17.6

d)
$$6.\overline{12}$$
 e) 401 **f)** $-7\frac{5}{7}$

3. Match each letter on the number line to one of the following rational numbers.



- **4.** Compare $-\frac{3}{4}$, 1.7, -0.6, $1\frac{1}{2}$, and $-0.\overline{6}$. Write the numbers in ascending order.
- **5.** Compare -0.5, $\frac{11}{6}$, $-\frac{2}{3}$, 1.9, and $1.\overline{3}$. Write the numbers in descending order.

6. Identify the equivalent fraction pairs.

a)
$$-\frac{10}{4}$$
, $\frac{-10}{-4}$ **b)** $-\frac{7}{14}$, $-\frac{1}{2}$ **c)** $\frac{-5}{-2}$, $\frac{5}{2}$

7. Identify the equivalent rational number pairs.

a)
$$\frac{-3}{-2}$$
, $1\frac{1}{2}$

a)
$$\frac{-3}{-2}$$
, $1\frac{1}{2}$ **b)** $4.\overline{6}$, $4\frac{2}{3}$

c)
$$-0.8$$
, $\frac{-4}{-5}$

8. Identify the smaller value in each pair.

a)
$$-\frac{1}{2}$$
, $\frac{3}{4}$

b)
$$\frac{7}{8}$$
, $\frac{8}{9}$

c)
$$-\frac{3}{7}$$
, $-\frac{4}{7}$

d)
$$-\frac{1}{100}$$
, $-\frac{1}{10}$ **e)** $-2\frac{3}{4}$, $-2\frac{3}{8}$

e)
$$-2\frac{3}{4}$$
, $-2\frac{3}{8}$

f) 0,
$$-\frac{1}{11}$$

- 9. For each of the following pairs of rational numbers,
 - i) write the rational numbers in decimal form
 - ii) identify a decimal number between the pair of decimal numbers

a)
$$\frac{1}{4}$$
, $\frac{1}{2}$

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

c)
$$-\frac{1}{10}$$
, $-\frac{1}{8}$

d)
$$-\frac{2}{3}$$
, $-\frac{5}{6}$

d)
$$-\frac{2}{3}$$
, $-\frac{5}{6}$ **e)** $-1\frac{3}{4}$, $-1\frac{4}{5}$

f)
$$-1\frac{19}{20}$$
, -2

- **10.** For each of the following pairs of rational numbers,
 - i) write the rational numbers in fraction form
 - ii) identify a fraction between the pair of fractions

11. Express each rational number as a fraction or mixed number in lowest terms.

a)
$$7 \div (-14)$$

12. Which integers are between $\frac{16}{3}$ and $\frac{-9}{2}$?