Warm-Up September 13,2017

The table shows the average early-morning temperature for seven communities in May.

Community	Average Early-Morning Temperature (°C)
Churchill, Manitoba	−5.1
Regina, Saskatchewan	3.9
Edmonton, Alberta	5.4
Penticton, British Columbia	6.1
Yellowknife, Northwest Territories	−0.1
Whitehorse, Yukon Territory	0.6
Resolute, Nunavut	−14.1

Big → small

a) Write the temperatures in descending order.

b) Which community has an average temperature between the values for Whitehorse and Churchill?

6.1, 5.4, 3.9, 0.6, -0.1, -5.1, -14.1

terminate or repeat.

1.16 -.02

____ 1. Which numbers are rational numbers?

$-5.4, \frac{7}{6}, 16, -\frac{1}{5}$

a. All of them

b. $\frac{7}{6}$ and 16

c. $-5.4, \frac{7}{6}$, and $-\frac{1}{5}$

d. $\frac{7}{6}$

C

____ 2. Identify equal rational numbers in this list:

$\frac{-3}{-4}, \frac{-3}{4}, -\frac{4}{3}, \frac{3}{-4}, -\frac{3}{4}$

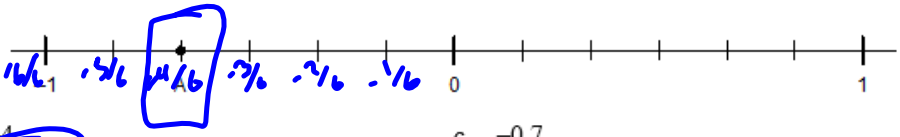
a. $-\frac{4}{3}$ and $\frac{3}{-4}$

b. $\frac{-3}{4}, -\frac{4}{3}$ and $-\frac{3}{4}$

c. $\frac{-3}{4}, \frac{3}{-4}$, and $-\frac{3}{4}$

d. $\frac{-3}{-4}$ and $-\frac{4}{3}$

____ 3. Which rational number is represented by the letter A on the number line?



a. $-\frac{4}{3}$

b. $-\frac{2}{3}$

c. –0.7

d. –0.4

____ 4. Order the numbers from least to greatest.

$-0.8, -0.\overline{8}, -0.88$

a. $-0.8, -0.\overline{8}, -0.88$

b. ~~$-0.8, -0.88, -0.\overline{8}$~~

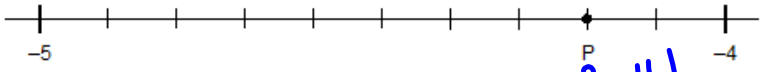
c. $-0.\overline{8}, -0.88, -0.8$

d. $-0.88, -0.\overline{8}, -0.8$

-0.800
-0.888
-0.880

Short Answer

5. Write the rational number represented by the letter P on the number line, as a decimal.



-4.2 -4.1

< less than

6. Which rational number is less?

$-\frac{7}{4}$ $-\frac{1}{2}$

$-\frac{7}{4} < \frac{1}{2}$ > greater than

7. Insert <, >, or = to make each expression true.

a) $-\frac{5}{4} \square -\frac{9}{7}$

$-1.25 > -1.286$

b) $5\frac{2}{9} \square 5\frac{1}{6}$

$5.\dot{2} > 5.1\dot{6}$

8. Order these numbers from greatest to least.

$-1\frac{1}{7}$, 1.2, $-1\frac{1}{4}$, $1\frac{2}{5}$, $-1\frac{1}{4}$

-1.14 -1.25 1.4

$1\frac{2}{5}, 1.2, -1, -1\frac{1}{7}, -1\frac{1}{4}$

3.2 Adding Rational Numbers

Add the following...

a. ***3+7*** = 10

b. ***-3+7*** = 4

c. ***-3 + (-7)*** = −10

d. ***3 + (-7)*** = -4

Remember to add fractions
[rational numbers]
you need COMMON DENOMINATORS!

$$\frac{2}{3} + \frac{1}{5}$$

$$\frac{10}{15} + \frac{3}{15}$$

$$\frac{13}{15}$$

Remember **L**owest
Common **M**ultiple
[LCM]

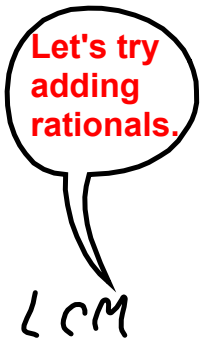
3, 6, 9, 12, 15, 18
5, 10, 15

B. $\frac{2}{3} + \frac{1}{-5}$

$\frac{2}{3} \cdot \frac{5}{5} + \frac{-1}{5} \cdot \frac{3}{3}$

$\frac{10}{15} + \frac{-3}{15}$

$\frac{7}{15}$



C. $\frac{-5}{8} + \frac{7}{-2}$

LCM

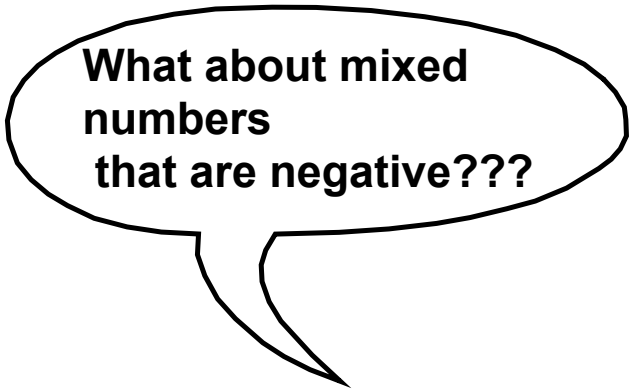
8, 16, 24...

2, 4, 6, 8

$-\frac{5}{8} + \frac{-7}{2} \cdot \frac{4}{4}$

$\frac{-5}{8} + \frac{-28}{8}$

$\frac{-33}{8}$


What about mixed numbers
that are negative???

Change each of the following into mixed numbers: Be careful when there is a negative!!!!!!!!

a) $\frac{23}{7} = 3\frac{2}{7}$

b) $\frac{12}{9} = 1\frac{3}{9} = 1\frac{1}{3}$

c) $-\frac{23}{7} = -3\frac{2}{7}$

d) $\frac{62}{-8}$

$\frac{-62}{8} : -7\frac{6}{8}$

$-7\frac{3}{4}$

Mixed number → improper fraction

a) $2\frac{3}{4} = \frac{11}{4}$ (+, ×)

b) $4\frac{1}{3}$ $\frac{13}{3}$ (+, ×)

c) $-2\frac{3}{4}$ $\frac{-11}{4}$ (+, ×)

d) $-3\frac{2}{3} = \frac{-11}{3}$ (+, ×)

a) $\left(-\frac{1}{4}\right) + 2\frac{1}{6}$

$\frac{-1}{4} + \frac{13}{6}$ (×3 on $\frac{-1}{4}$, ×2 on $\frac{13}{6}$)

$\frac{-3}{12} + \frac{26}{12}$

$\frac{23}{12} = 1\frac{11}{12}$

Try These Ones

LCM

4, 8, 12, 16

6, 12

b) $-3^{1/3} + 2^{5/6}$

$-3\frac{1}{3} + 2\frac{5}{6}$

$\frac{-10}{3} + \frac{17}{6}$ (×2 on $\frac{-10}{3}$)

$\frac{-20}{6} + \frac{17}{6}$

$\frac{-3}{6} = \frac{-1}{2}$

Page 112

#11, 14 [c,d], 15 [a,b], 17

Lowest Terms, Mixed # when necessary!

Answers Page 481