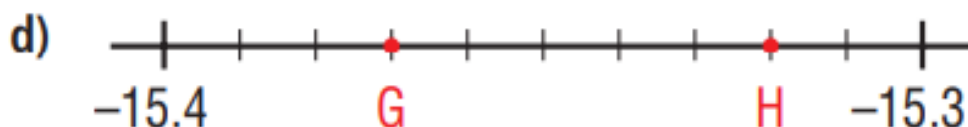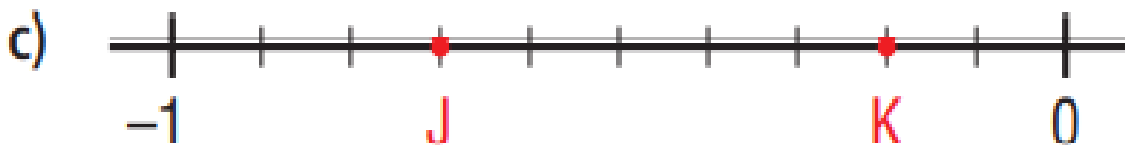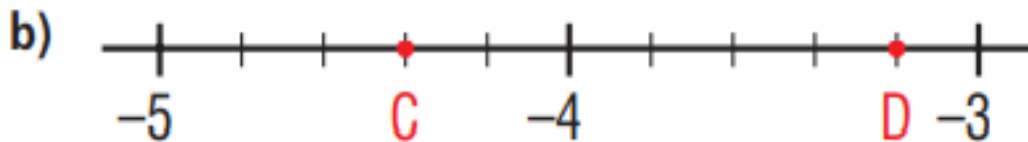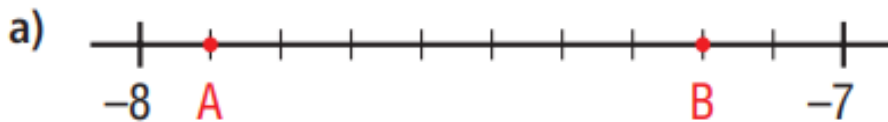# Class/Homework

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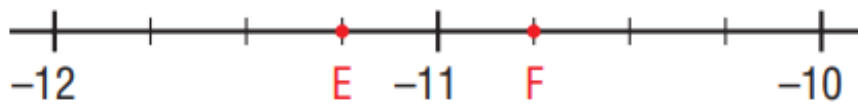
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8. Write the rational number represented by each letter on the number line, as a fraction then a decimal.
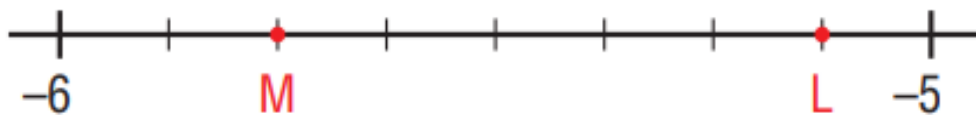
a)

-8   A   B   -7

b)

-5   C   -4   D -3

c)

-1   J   K   0

d)

-15.4   G   H   -15.3

10. Write the rational number represented by each letter on the number line, as a fraction.

a)

```
+----+----+----+--●-+----+--●-+----+----+----+
-12              E  -11   F              -10
```

b)

```
+----+----●----+----+----+----+----●----+
-6        M                          L   -5
```

c)

```
+----+----+----+----●----+----+----●----+----+----+
-5                  N  -4           P              -3
```

d)

```
+----+----●----+----+----+----+----●----+----+
 -3/4      Q  -1/2           -1/4  R            0
```
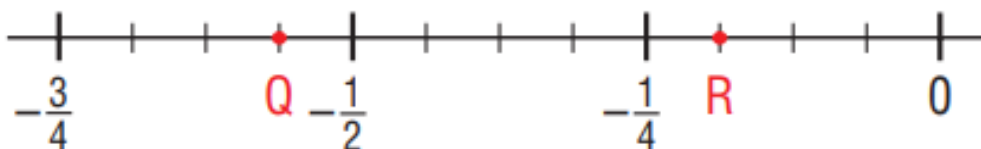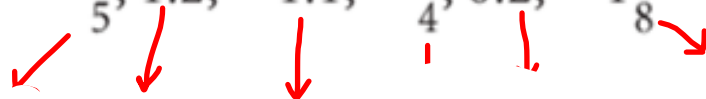
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3.1

2. Order the following rational numbers from least to greatest. Place each number on a number line to support your answer.

$$-\frac{6}{5}, 1.2, -1.1, -\frac{1}{4}, 0.2, -1\frac{3}{8}$$

3. Replace each □ with < or >. .
How could you check your answers?

a) $-\dfrac{2}{3} \ \square \ -\dfrac{3}{4}$

b) $-\dfrac{8}{3} \ \square \ -\dfrac{9}{4}$

c) $-2.5 \ \square \ 0.5$

d) $-\dfrac{4}{5} \ \square \ -0.9$

4. Identify a rational number between each pair of numbers. Sketch a number line to illustrate each answer.

a) $1.2, 1.4$

b) $-\dfrac{3}{4}, \dfrac{5}{8}$

c) $0.4, \dfrac{1}{3}$

d) $-1.05, -\dfrac{9}{10}$

3.2   **5. a)** How can you determine the sign of the sum of two numbers before you add them?

b) Determine the sign of each sum, then check by using a calculator.

i) $2.35 + 3.47$ $=$

ii) $-5.783 + (-0.247)$ $=$

iii) $-\dfrac{2}{3} + \left(-1\dfrac{1}{8}\right)$ $=$

iv) $-5.27 + 6.58$ $=$

v) $-\dfrac{17}{5} + \dfrac{4}{9}$ $=$

vi) $0.085 + (-0.125)$ $=$

6. Determine each sum.

a) $8.37 + 0.58$ b) $-21.25 + (-36.57)$

=   =

c) $-157.4 + 32.7$ d) $\frac{5}{8} + \left(-\frac{1}{9}\right)$
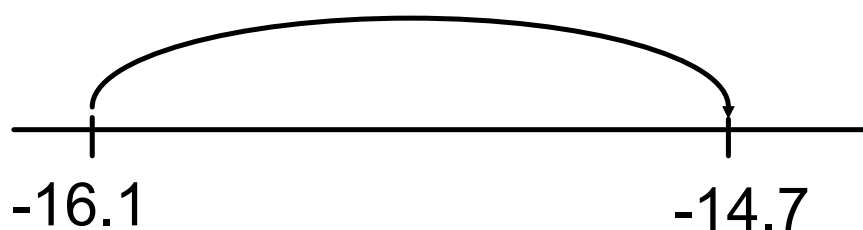
=

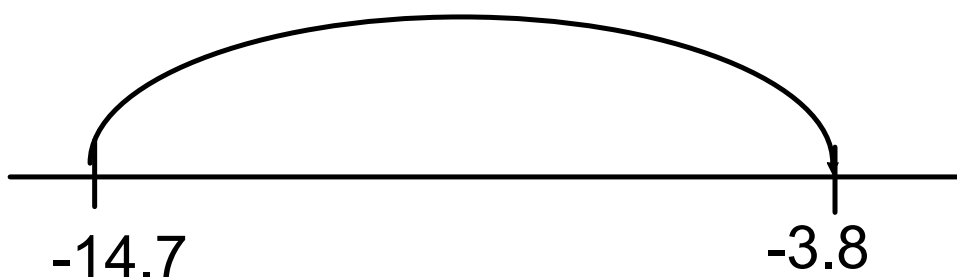e) $-8\frac{1}{4} + 5\frac{1}{5}$ f) $-\frac{5}{3} + \left(-\frac{23}{7}\right)$

=

=

=

=

=

3.3 **7.** The temperature of a freezer changed
from $-16.1°C$ to $-14.7°C$.

a) i) By how much did the temperature
change?

ii) Is this an increase or a decrease in
temperature? Explain how you know.

-16.1   -14.7

b) By how much does the temperature need
to change again before it is at $-3.8°C$?

-14.7   -3.8

8. Determine each difference.

a) $40.25 - 63.10$

=

b) $-112.2 - (-14.8)$

=

c) $\dfrac{2}{5} - \dfrac{9}{10}$
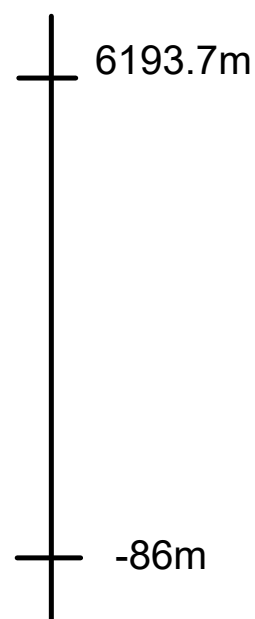
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=

=

d) $-4\dfrac{4}{9} - 3\dfrac{5}{6}$

e) $-1.8 - 4.3$

=

f) $\dfrac{23}{8} - \left(-\dfrac{7}{2}\right)$

9. The lowest point on land in North America
is Death Valley at 86 m below sea level.
The highest point is the peak of
Mt. McKinley at 6193.7 m above sea level.
How can you use rational numbers to
calculate the distance between these
two points?

6193.7m

-86m

10. a) How can you determine the sign of the difference of two numbers before you subtract them?

b) Determine the sign of each difference, then check by using a calculator.

     i) $62.4 - 53.7$ ii) $-0.54 - 1.98$

         $=$ $=$

     iii) $\dfrac{1}{12} - \dfrac{9}{10}$ iv) $5\dfrac{2}{3} - \left(-7\dfrac{1}{2}\right)$

         $=$ $=$