

NAME

DATE

PERIOD

KEY

24

Unit 7, Lesson 7: Comparing Numbers and Distance from Zero

1. In the context of elevation, what would $|-7|$ feet mean?

7 feet below sea level

2. Match the the statements written in English with the mathematical statements.

A. The number -4 is a distance of 4 units away from 0 on the number line.

4

1. $|-63| > 4$

B. The number -63 is more than 4 units away from 0 on the number line.

1

2. $-63 < 4$

C. The number 4 is greater than the number -4.

5

3. $|-63| > |4|$

D. The numbers 4 and -4 are the same distance away from 0 on the number line.

6

4. $|-4| = 4$

E. The number -63 is less than the number 4.

2

5. $4 > -4$

F. The number -63 is further away from 0 than the number 4 on the number line.

3

6. $|4| = |-4|$

3. Compare each pair of expressions using $>$, $<$, or $=$.

a. $-32 < 15$

e. $2 > -17$

b. $|-32| > |15|$

f. $2 < |-17|$

c. $5 > -5$

g. $|-27| < |-45|$

d. $|5| = |-5|$

h. $|-27| > -45$

Mai received and spent money in the following ways last month. For each example, write a signed

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number to represent the change in money from her perspective.

a. Her grandmother gave her \$25 in a birthday card. $+25$

b. She earned \$14 dollars babysitting. $+14$

c. She spent \$10 on a ticket to the concert. -10

d. She donated \$3 to a local charity -3

e. She got \$2 interest on money that was in her savings account.

$+2$

(from Unit 7, Lesson 5)

5. Here are the lowest temperatures recorded in the last 2 centuries for some US cities. Temperatures are in degrees Fahrenheit.

- Death Valley, CA was -45 in January of 1937.
- Danbury, CT was -37 in February of 1943.
- Monticello, FL was -2 in February of 1899.
- East Saint Louis, IL was -36 in January of 1999.
- Greenville, GA was -17 in January of 1940.

a. Which of these states has the lowest record temperature?

DV, CA -45°

b. Which state has a lower record temperature, FL or GA?

GA $-17 < -2$

c. Which state has a lower record temperature, CT or IL?

$-37 < -36$

d. How many more degrees colder is the record temperature for GA than for FL?

-17 -2 15° difference
GA FL

(from Unit 7, Lesson 1)

6. Find the quotients.

- a. $0.024 \div 0.015$
 b. $0.24 \div 0.015$
 c. $0.024 \div 0.15$
 d. $24 \div 15$

$\frac{24}{1000} \div \frac{15}{1000} = 1.6$
 $\frac{240}{1000} \div \frac{15}{1000} = 16$
 $\frac{24}{1000} \div \frac{150}{1000} = 0.16$

→ use first

$$\begin{array}{r} 1.6 \\ 15 \overline{) 240} \\ \underline{15} \\ 90 \\ \underline{90} \\ 0 \end{array}$$