

LESSON
11.1

Comparing Integers

Goal: Compare and order integers.



Vocabulary

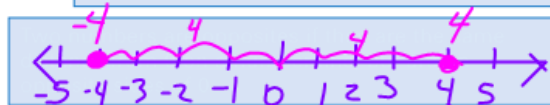
Integer:

whole # that either positive or negative

Positive integers:

Negative integers:

Opposites:



EXAMPLE 1 Using Integers

Write the integer that represents the situation.

- a. A fence post should reach a depth of 5 feet below ground level.

Answer: -5 feet

- b. A 14 point increase

Answer: 14 points

In your notes, keep a list of words that could indicate a positive integer (increase, profit, above) and a list of words that could indicate a negative integer (loss, decrease, below).

Your turn now Write the integer that represents the situation.

- 1. a \$25 loss

-\$25

- 2. an increase of 2 inches

2 inches

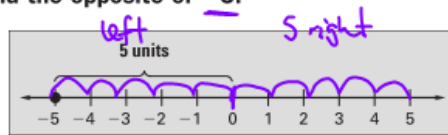
- 3. 17 feet above sea level

17 feet

EXAMPLE 2 Identifying Opposites

Find the opposite of -5 .

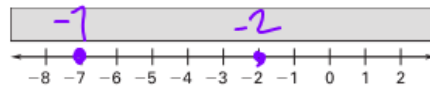
The integer -5 is read as "negative 5" or as "the opposite of 5."



Answer: The opposite of -5 is 5 .

EXAMPLE 3 Comparing Integers

Compare -7 and -2 .



Answer: Because -7 is to the left of -2 on the number line, $-7 < -2$.

Your turn now Find the opposite of the integer.

4. 2	5. -6	6. -17	7. 1
-2	6	17	-1

Copy and complete the statement using $<$ or $>$.

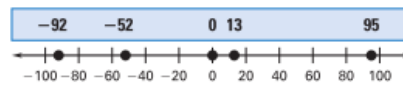
8. $-8 ? 8$	9. $0 ? -10$	10. $6 ? -7$	11. $-3 ? -4$
$-8 < 8$	$0 > -10$	$6 > -7$	$-3 > -4$

EXAMPLE 4 Ordering Integers

Lakes The table shows the elevations, with respect to sea level, of several natural lakes in the world. Which lake has the lowest elevation?

Lake	Elevation (with respect to sea level)
① Caspian Sea	-92 feet ✓
② Lagoda	13 feet ✓
③ Maracaibo	0 feet ✓
④ Eyre	-52 feet ✓
⑤ Nettilling	95 feet ✓

Solution



Answer: The Caspian Sea has the lowest elevation.