

Chapter 2: Integers and Introduction to Solving Equations

NO CALCULATORS ALLOWED

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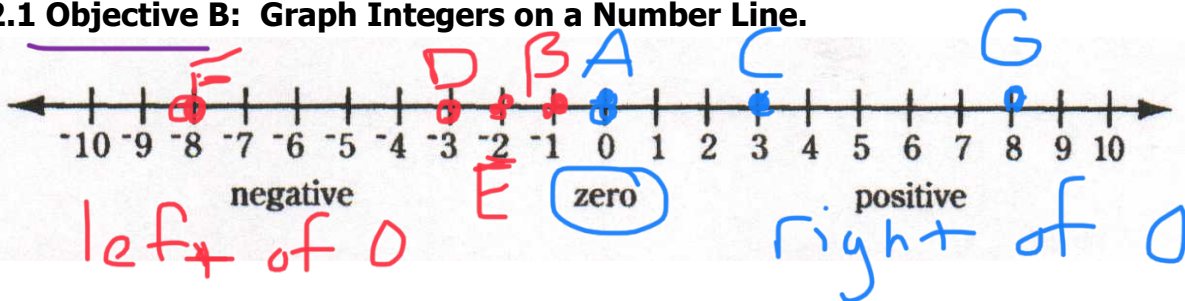
2.1 Introduction to Integers

2.1 Objective A: Represent Real-Life Situations with Integers

Ex 1. The lowest elevation in the United States is found at Death Valley, California, at an elevation of 282 feet below sea level. Represent this position with an integer.

-282

2.1 Objective B: Graph Integers on a Number Line.



Ex. 2. Graph.

- A) 0 B) -1 C) 3 D) -3 E) -2 F) -8 G) 8

2.1 Objective C: Compare Integers.

The inequality symbol $\boxed{>}$ means "is greater than" more to right

The inequality symbol $\boxed{<}$ means "is less than." right

Ex. 3 Insert $<$ or $>$ between each pair of integers to make a true statement

- 2 $<$ 3 "2 is less than 3"
- 6 $>$ 0
- 3 $<$ 3
- 7 $>$ -8

2.1 Objective D: Find the Absolute Value of a Number.

Definition:
 • Absolute Value of a number is the number's distance from 0 on the number line.

Notation: $|-11| = \underline{11}$ (11 away from 0)

The absolute value of what other integer has this same answer? 11

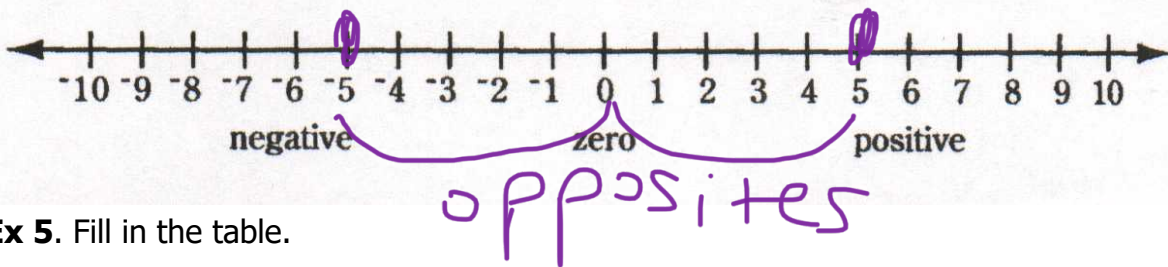
Ex. 4. Simplify

1. $|9| = \underline{9}$ 2. $|-9| = \underline{9}$ 3. $-|-9| = \underline{-9}$

2.1 Objective E: Find the Opposite of a Numbers.

Definition: Opposites $\xrightarrow{\text{same abs. value}}$

If a is a number, then $-(-a) = \underline{a}$



Ex 5. Fill in the table.

Number	Absolute Value	Opposite
5	5	-5
-3	3	3
0	0	0
27	27	-27
-11	11	11