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# Chapter 6 (6.1-6.4) Study Guide

**1. Write a positive or negative integer that represents the situation.**

a. You return an item at Target and receive a $20 credit. _____

b. The plane descended 850 feet towards the ground. _____

c. The basketball team scores 5 points. _____

d. You run up 72 steps. _____

e. The temperature dropped 12 degrees overnight. _____

f. You lose 7 points on test. _____

g. You gain 8 pounds. _____

h. The football team earns a 5-yard penalty. _____

**2. Find the opposite.**

a. $-5$ _____ b. $-1\frac{5}{9}$ _____ c. $0$ _____

3. Bill says that the opposite of a certain integer is -8. Joe concludes that the opposite of an integer is *always* negative. Explain Joe's error with words, *and* support your answer with a specific example.

Error: _____

_____

_____

Example: _____

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4. Construct a number line using integers. Then, graph each rational number and its opposite.

a. $-7$

b. 6

c. $-2\frac{1}{2}$

d. 3.5

5. Complete the statement using < or >.

a. $-4$ _____ 0

b. $-7$ _____ $-10$

c. $-2$ _____ $-2.5$

d. 1.56 _____ $-9.9$

e. $-2\frac{1}{2}$ _____ $-2\frac{1}{3}$

f. $-3.4$ _____ $-3.44$

6. The table below shows the elevations of several locations in state park.

| Location | Elevation (ft) |
|---|---|
| Mt. Jones | 9 |
| Steinwascher Creek | $-3$ |
| Sullivan Hills | 5 |
| Orsargos Lane | $-5$ |

a. What location has the least elevation?

b. Which location has the greatest elevation?

c. Order the **integers** from least to greatest elevation.

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**7. Order the integers from least to greatest.**

a. $6,\ 3,\ -3,\ -1,\ 4,\ -5$ _____

b. $-3,\ -10,\ -12,\ -6,\ 0$ _____

c. $-25,\ 26,\ -30,\ -32,\ 19$ _____

**8.** Mrs. Smiler is comparing the temperatures of three days in February. The temperatures in Monday and Tuesday were opposites. The temperature on Wednesday was neither positive nor negative. The temperature dropped below zero on Monday. Write the 3 days in order from lowest to highest temperature.

_____ _____ _____

**9. Order the rational numbers from least to greatest.**

a. $-\frac{7}{10},\ \frac{3}{5},\ -\frac{4}{10},\ -\frac{1}{2},\ -1$ _____

b. $-5\frac{1}{2},\ -6,\ -6\frac{2}{3},\ -5\frac{1}{3},\ -5$ _____

c. $-2.4,\ -2.1,\ -3,\ -2.75,\ -2$ _____

d. $-3.4,\ -5.2,\ -3.33,\ 4.7,\ -3.9$ _____

**10. Find the absolute value.**

a. $|13|$ _____ b. $|-4.5|$ _____ c. $|-657|$ _____

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11. Complete the statement using <, >, or =.

a. $6$ _____ $|-6|$ b. $|-3|$ _____ $|-4|$ c. $|-12|$ _____ $-12$

d. $|15|$ _____ $12$ e. $0$ _____ $|-7|$ f. $|-4|$ _____ $|4|$

12. Order the rational numbers from least to greatest.

a. $-2,\ |-10|,\ |5|,\ 6,\ |-7|$ _____

b. $-6,\ |-7|,\ |3|,\ 8,\ |-1|$ _____

13. Two boats lie at the bottom of the ocean. Boat A is 33 feet below sea level and Boat B is 25 feet below sea level.

a. Write an integer for the position of each boat to sea level.

Boat A _____ Boat B _____

b. Find the absolute value of each integer.

| Boat A | _____ | Boat B | _____

c. Which boat is farther from seal level? _____

14. True or False, explain your thinking: $|22| = -22$

_____

_____

_____