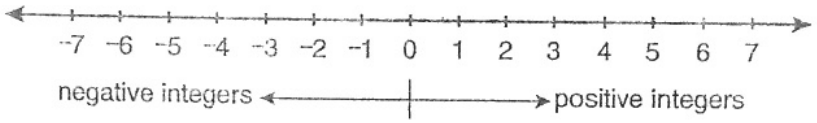
Name _____ Date _____

Integers and Opposites

Integers are the set of whole numbers and their **opposites.** Integers can be shown on a number line. Positive integers are greater than 0. Negative integers are less than 0.



The integer -5 is read *negative five.* The integer 5 can also be written as +5, or *positive five.* These two integers, 5 and -5, are opposites.

Positive and negative numbers are used in many everyday situations.

10° below zero	-10
loss of $7	-7
gain of 12 yards	+12 or 12
profit of $100	+100 or 100

Write the opposite of each integer.

1. 4 -4

2. -7 _____

3. -21 _____

4. 45 _____

5. -19 _____

6. 33 _____

7. -66 _____

8. 0 _____

Write an integer to describe each situation.

9. 33° above zero +33

10. 8° below zero _____

11. deposit of $150 _____

12. loss of 10 yards _____

13. gain of 6 yards _____

14. profit of $88 _____

15. 3,500 ft above sea level _____

16. 50 ft below sea level _____

17. up 7 floors _____

18. down 4 floors _____

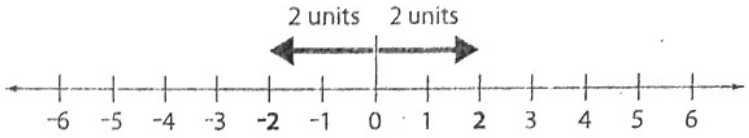
19. debt of $30 _____

20. 9 units to the left of 0 _____

Name _____ Date _____

Understanding Numbers and Absolute Value

The **absolute value** of a number is its distance from 0 on a number line. Look at 2 and -2. They are both 2 units away from 0.



2 is 2 units from 0. The absolute value of 2 is 2.

-2 is 2 units from 0. The absolute value of -2 is 2.

$|2| = 2$ is read as *the absolute value of 2 equals 2.*

$|-2| = 2$ is read as *the absolute value of -2 equals 2.*

$|3| = 3$ $|-4| = 4$ $|1| = 1$ $|-5| = 5$

Find the absolute value of each number.

1. $|6| =$ _____
2. $|-9| =$ _____
3. $|-8| =$ _____
4. $|-13| =$ _____
5. $|18| =$ _____
6. $|-3| =$ _____
7. $|10| =$ _____
8. $|-15| =$ _____
9. $|-7| =$ _____
10. $|0| =$ _____
11. $|-17| =$ _____
12. $|22| =$ _____
13. $|-12| =$ _____
14. $|-19| =$ _____
15. $|-11| =$ _____
16. $|26| =$ _____

Name the two numbers that have the given absolute value.

17. 30 — 30, -30
18. 14 _____
19. 32 _____
20. 29 _____
21. 21 _____
22. 23 _____
23. 42 _____
24. 99 _____