

## 1

**Absolute Value of a Number**

The **absolute value** of a number is the distance between that number and zero on the number line. It is denoted by two bars (| |). Since we are referring to distance, the absolute value of a number can never be negative. However, if a negative sign is outside the absolute value, it is not affected by the absolute value symbol.

**Examples :**

1.  $|0| = 0$
2.  $|-2| = 2$
3.  $|4| = 4$
4.  $-|3| = -3$
5.  $-|-5| = -5$
6.  $|6| + |-4| = 10$

**Practice Exercises 1**

A. Give the value of the following.

- |                        |                         |
|------------------------|-------------------------|
| _____ 1. $ 4 $         | _____ 6. $ 16  +  -4 $  |
| _____ 2. $ -20 $       | _____ 7. $ 6 - 4 $      |
| _____ 3. $- 15 $       | _____ 8. $ 10 + 4 $     |
| _____ 4. $- -12 $      | _____ 9. $ 15  -  -5 $  |
| _____ 5. $ -5  +  -5 $ | _____ 10. $ -8  +  -5 $ |

B. Write  $>$ ,  $<$  or  $=$  on the blank to make the statement true.

- \_\_\_\_\_ 1.  $|4|$  \_\_\_\_\_  $|-20|$
- \_\_\_\_\_ 2.  $|7|$  \_\_\_\_\_  $|25|$
- \_\_\_\_\_ 3.  $|-20|$  \_\_\_\_\_  $|4|$
- \_\_\_\_\_ 4.  $-|15|$  \_\_\_\_\_  $|-20|$
- \_\_\_\_\_ 5.  $|-10|$  \_\_\_\_\_  $|6 - 4|$
- \_\_\_\_\_ 6.  $|8|$  \_\_\_\_\_  $|10 + 4|$
- \_\_\_\_\_ 7.  $|10 + 4|$  \_\_\_\_\_  $|-8| + |-5|$
- \_\_\_\_\_ 8.  $|-5| + |-5|$  \_\_\_\_\_  $|-5| + |-5|$
- \_\_\_\_\_ 9.  $|16| + |-4|$  \_\_\_\_\_  $|20|$
- \_\_\_\_\_ 10.  $|3 - 2| + |10 + 4|$  \_\_\_\_\_  $|10|$