

Exercise 60

In the following exercises, fill in $<$, $>$, or $=$ for each of the following pairs of numbers.

(a) $-|-9|$ ___ $|-9|$

(b) -8 ___ $|-8|$

(c) $|-1|$ ___ -1

(d) $-(-14)$ ___ $-|-14|$

Solution

The absolute value sign gets rid of the minus sign within it.

Part (a)

$$-|-9| \text{ ___ } |-9|$$

$$-(9) \text{ ___ } (9)$$

$$-9 < 9$$

Part (b)

$$-8 \text{ ___ } |-8|$$

$$-8 \text{ ___ } (8)$$

$$-8 < 8$$

Part (c)

$$|-1| \text{ ___ } -1$$

$$(1) \text{ ___ } -1$$

$$1 > -1$$

Part (d)

$$-(-14) \text{ ___ } -|-14|$$

$$14 \text{ ___ } -(14)$$

$$14 > -14$$