

Get Ready

Use Symbols to Describe Relationships

You can use symbols for operations and to show relationships between quantities.

Symbol	\times	\div	$>$	$<$	$=$	\neq
Meaning	multiply	divide	greater than	less than	equal to	not equal to

- example: $11 < 22$ means 11 is less than 22

1. Write each word statement using symbols.

- a) 5 is greater than 2 _____
- b) 7 is less than 20 _____
- c) 5 multiplied by 3 _____
- d) 9 is equal to $\frac{18}{2}$ _____

2. Write each mathematical statement in words.

- a) $4 < 8$ _____
- b) $8 > 2$ _____
- c) $14 \div 2$ _____
- d) $4 \neq \frac{8}{3}$ _____

Use Between

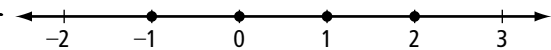
Between can describe

- a physical relationship
- example: Paul is *between* 2 dogs

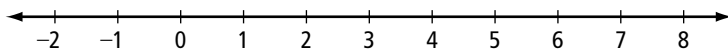
or

- a location
- example: the integers *between* -2 and 3 are $-1, 0, 1,$ and 2

Between does not include -2 and 3 .



3. List all the *whole* numbers that make the statement true.



- a) between 6 and 3 _____
- b) between -2 and 2 _____
- c) between 4.6 and 7.1 _____
- d) between -1 and 4 _____

Use Inequality Symbols



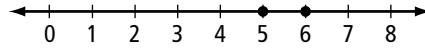
inequality

- compares expressions that may not be equal
- inequality symbols: $<$, $>$, \leq , \geq , or \neq

$5 < 6$ is an inequality. You can also write it as $6 > 5$.

5 is less than 6.

6 is greater than 5



4. Write 2 expressions showing the relationship between the numbers.
Use the symbols $<$ and $>$.

a) 1 and 7

b) 4 and -1

1 _____ 7 or 7 _____ 1

5. List 4 whole numbers that satisfy each statement.

a) $x < 4$

0, 1, 2, 3, ...

b) $t > 11$

Solve Equalities

Solve and check $2x - 1 = 7$.

$2x - 1 + 1 = 7 + 1$ Use the opposite operation.

$$2x = 8$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

Check:

Left Side

Right Side

$$\begin{aligned} &2x - 1 \\ &= 2(4) - 1 \\ &= 8 - 1 \\ &= 7 \checkmark \end{aligned}$$

7
✓

6. Solve. Then, verify your answer.

$$-2x + 1 = 9$$

$$-2x + 1 - \underline{\hspace{2cm}} = 9 - \underline{\hspace{2cm}}$$

$$-2x = \underline{\hspace{2cm}}$$

$$\frac{-2x}{-2} = \frac{\boxed{\hspace{2cm}}}{-2}$$

$$x = \underline{\hspace{2cm}}$$

Check:

Left Side

Right Side

$$-2x + 1$$

9