## Use Symbols to Describe Relationships

Mathematicians use symbols for operations and to show relationships between quantities. For example,
$\times$ represents multiplication $\quad>$ represents is greater than
$\div$ represents division
< represents is less than
= represents is equal to
$\neq$ represents is not equal to

1. Translate each word statement into symbols.
a) 5 is greater than 2 .
b) 7 is less than 20 .
c) 5 multiplied by 3 .
d) 9 is equal to $\frac{18}{2}$.

## Use Between

The term between can be used to describe a physical relationship or

location. For example, Paul is between Sue and Shasta in line. Similarly, between can be used in mathematics. For example, all of the integers between -2 and 3 are $-1,0,1$ and 2
Note that between does not include -2 and 3 .
3. List all of the whole numbers satisfying each condition. Use the number line to help you.

a) between 6 and 3
b) between -2 and 2
c) between 4.6 and 7.1
d) less than 4

## Use Inequality Symbols

An inequality expresses a relationship between numbers or quantities. Two
 inequality symbols are $<$ and $>$.

The inequality $5<6$ means 5 is less than 6 . This same information can be shown as $6>5$, which means 6 is greater than 5 .
4. Write two expressions showing the relationship between the given numbers. Use both the less than, $<$, and greater than, >, symbols.
a) 1 and 7
b) 4 and -1
c) $t>11$
c) 3 and 3.5
d) $a<15$
d) 0 and 1

## Solve Equalities

When you solve an equation, you need to find all values for the unknown that make a true statement.

Solve: $2 x-1=7$.

Solution:

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

Check:
2(4) - $1=7$
8-1 = 7

$$
7 \text { = } 7
$$

6. Solve each equation. Then, verify your answer.
a) $x+4=6$
b) $-2 x+1=9$
c) $-5 x-3=-8$
d) $3 x-5=4$
