| Key Concept Translating Verbal to Algebraic Expressions |  |
| :--- | :--- |
| Operation | Verbal Phrases |
| Addition | more than, sum, plus, increased by, added to |
| Subtraction | less than, subtracted from, difference, decreased by, minus |
| Multiplication | product of, multiplied by, times, of |
| Division | quotient of, divided by |


| Inequality Symbols |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Symbol | $<$ | $>$ | $\leq$ | $\geq$ |
| Key phrases | is less than <br> - is fewer than | - is greater than <br> - is more than | - is less than or equal to <br> - is at most <br> - is no more than | - is greater than or equal to <br> - is at least <br> - is no less than |

Write each sentence as an inequality.
a. A number $w$ minus 3.5 is less than or equal to -2 .
b. Three is less than a number $n$ plus 5 .
c. Zero is greater than or equal to twice a number $x$ plus 1 .

A number $b$ is fewer than 30.4.

## Tell whether -4 is a solution of each inequality.

$$
\text { a. } x+8<-3
$$

$$
\text { b. }-4.5 x>-21
$$

## Tell whether -6 is a solution of the inequality.

$$
c+4<-1
$$

$$
4 x-25>-2
$$

## Graph each inequality.

$$
\text { a. } y \leq-3
$$

b. $\frac{5}{2}<x$

## Writing and Interpreting Inequalities

## EXAMPLE 4 Writing an Inequality from a Graph <br> WATCH

The graph shows the height restriction $h$ (in inches) for a ride at an amusement park. Write and interpret an inequality that represents the height restriction for the ride.


The graph shows the height restriction $h$ (in inches) for a ride at a water park. Write and interpret an inequality that represents the height restriction for the ride.


