

## Reteach: Write and Graph Inequalities

### Example 1

Write an inequality for the sentence.

Fewer than 70 students attended the last dance.

<b>Words</b>	<i>Fewer than 70</i> students attended the last dance.
<b>Variable</b>	Let $s$ = the number of students.
<b>Inequality</b>	$s < 70$

### Example 2

Graph each inequality on a number line.

a.  $x > 8$



The **open dot** means 8 does *not* make the sentence true. The graph to the right means that numbers greater than 8 make the sentence true.

b.  $x \leq 8$



The **closed dot** means 8 *does* make the sentence true. The graph to the left means that numbers less than 8 make the sentence true.

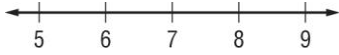
### Exercises

Write an inequality for each sentence.

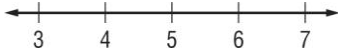
- The maximum height  $h$  is 45 feet.
- The adult male elephants  $m$  all weighed over 12,000 pounds.
- The maximum fee  $f$  for any student is \$15.
- You must be at least 38 inches tall to ride the roller coaster.

**Graph each inequality on the number line.**

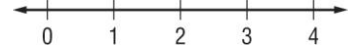
**5.**  $x > 7$



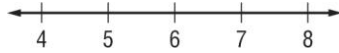
**6.**  $s \geq 5$



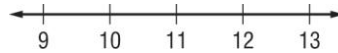
**7.**  $m < 2$



**8.**  $f \leq 6$



**9.**  $r > 11$



**10.**  $n \geq 3$

