3-1

Practice   *Form K*

Inequalities and Their Graphs

Write an inequality that represents each verbal expression.

1. a is greater 4.

$a \boxed{>} 4$

2. c is less than or equal to -2.

$c \boxed{\leq} -2$

3. m is greater or equal to 1.

$m \boxed{\geq} 1$

4. f is less than 2.

$f \boxed{<} 2$

Determine whether each number is a solution of the given inequality. The first step is shown.

5. $2x + 4 < 20$

  a. 2

    Substitute 2 for x. $2(2) + 4 \overset{?}{<} 20$ **yes**

  b. 10

    Substitute 10 for x. $2(10) + 4 \overset{?}{<} 20$ **no**

3-1 **Practice** (continued)   *Form K*
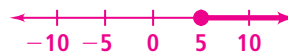
Inequalities and Their Graphs

Graph each inequality.

6. $m < 1$

7. $n \geq 5$
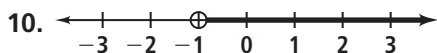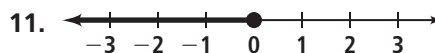

8. $j > -4$

9. $k \leq 10$

Write an inequality for each graph.

10.

$x > -1$

11.

$x \leq 0$

Define a variable and write an inequality to model each situation.

12. No more than 10 people may use the treadmills at any time in the gym.

Let $n = $ **the number of people who use the treadmills at any time in the gym**

$n \boxed{\leq} 10$

13. To train for a marathon, a runner decides that she must run at least 12 miles each day.

Let $d = $ **the number of miles run each day**

$d \boxed{\geq} 12$