

# 3-1 Practice Form K

## Inequalities and Their Graphs

Write an inequality that represents each verbal expression.

1.  $a$  is greater than 4.

$a > 4$

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

$c \leq -2$

3.  $m$  is greater or equal to 1.

$m \geq 1$

4.  $f$  is less than 2.

$f < 2$

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  $x$

$2(2) + 4 < 20$

$4 + 4 < 20$

$8 < 20$  False, 2 is not a soln.

b. 10

Substitute 10 for  $x$ .

$2(10) + 4 < 20$

$20 + 4 < 20$

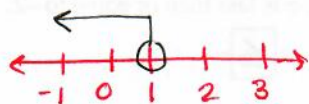
$24 < 20$  False, 10 is not a soln.

# 3-2 Practice (continued) Form K

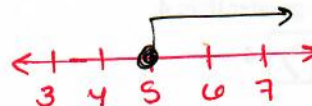
## Inequalities and Their Graphs

Graph each inequality.

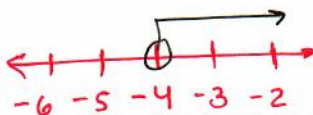
6.  $m < 1$



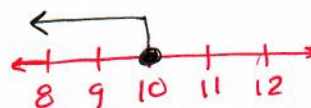
7.  $n \geq 5$



8.  $j > -4$



9.  $k \leq 10$



Write an inequality for each graph.



$x < -1$



$x \leq 0$

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 # of people using treadmills*

$n \leq 10$

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

Let  $d =$  *# of miles ran each day*

$d \geq 12$

*↗ 12 or more miles*