

**3-1****Practice**

Form G

**Inequalities and Their Graphs****Write an inequality that represents each verbal expression.**

1.  $v$  is greater 10.
2.  $b$  is less than or equal to  $-1$ .
3. the product of  $g$  and 2 is less than or equal to 6.
4. 2 more than  $k$  is greater than  $-3$ .

**Determine whether each number is a solution of the given inequality.**

- |                           |         |         |          |
|---------------------------|---------|---------|----------|
| 5. $3y + 5 < 20$          | a. 2    | b. 0    | c. 5     |
| 6. $2m - 4 \geq 10$       | a. $-1$ | b. 8    | c. 10    |
| 7. $4x + 3 > -9$          | a. 0    | b. $-2$ | c. $-4$  |
| 8. $\frac{3-n}{2} \leq 4$ | a. 3    | b. 2    | c. $-10$ |

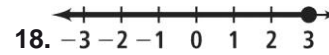
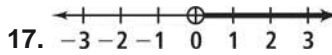
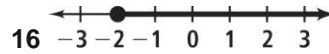
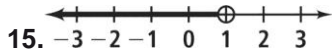
**Graph each inequality.**

- |                 |                        |
|-----------------|------------------------|
| 9. $y < -2$     | 10. $t \geq 4$         |
| 11. $z > -3$    | 12. $v \leq 15$        |
| 13. $-3 \geq f$ | 14. $-\frac{5}{3} < c$ |

## 3-1

**Practice** (continued)

Form G

**Inequalities and Their Graphs****Write an inequality for each graph.****Define a variable and write an inequality to model each situation.**

19. The school auditorium can seat at most 1200 people.
20. For a certain swim meet, a competitor must swim faster than 23 seconds to qualify.
21. For a touch-typing test, a student must type at least 65 wpm to receive an “A.”

**Write each inequality in words.**

22.  $n < 3$

23.  $b > 0$

24.  $-5 \leq x$

25.  $z \geq 3.14$

26.  $-4 < q$

27.  $18 \geq m$

28. A local pizzeria offered a special. Two pizzas cost \$14.99. A group of students spent less than \$75. They purchased three pitchers of soda for \$12.99. How many pizzas could the group purchase?
29. A student needs at least seven hours of sleep each night. The student goes to bed at 11:00 p.m. and wakes up before 6:30 a.m. Is the student getting enough sleep? Write an inequality for the number of hours of sleep the student gets each night.