

Practice: Skills

Inequalities

Write an inequality for each sentence.

define a variable

- SPORTS** You need to score at least 30 points to take the lead.
 $p = \text{points}$ $p \geq 30$
- SEASONS** There are less than 12 hours of daylight each day in winter.
 $h = \text{hours}$ $h < 12$
- TRAVEL** The bus seats at most 60 people.
- MONEY** The coupon is good for any item that costs less than \$10.
- TESTS** A score of at least 92 on the test is considered an "A."
- HEALTH** The baby weighed more than 7 pounds at birth.
- DRIVING** Victor drives less than 12,000 miles per year.
- TRAVEL** Your waiting time will be 18 minutes or less.
- SCHOOL TRIPS** At least 15 students must sign up for the school trip.

For the given value, state whether each inequality is *true* or *false*. Show work!

10. $y + 2 < 8, y = 3$

$$3 + 2 < 8$$
$$5 < 8 \quad \text{true}$$

11. $12 > u - 1, u = 14$

12. $p + 5 \geq -6, p = 1$

13. $-6 < a - 3, a = -1$

14. $4s \leq 15, s = 4$

15. $-5 > 1 - d, d = -9$

16. $-2 - g \geq -7, g = 5$

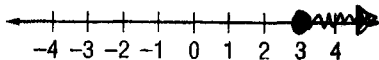
17. $\frac{k}{3} > 4, k = 12$

18. $4 < \frac{-10}{z}, z = -2$

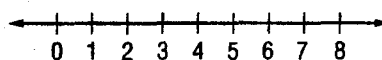
19. $\frac{12}{m} \geq 3, m = 4$

Graph each inequality on a number line.

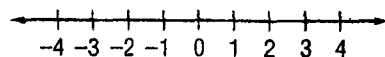
20. $v \geq 3$



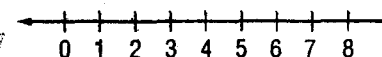
21. $b > 5$



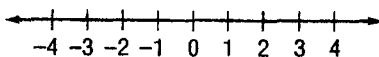
22. $n \leq -3$



23. $w < 4$



24. $r > -1$



25. $h \geq -7$

