

4.1 EXERCISES

KEY

◆ = MULTIPLE CHOICE PRACTICE
Exs. 10, 23, 38, and 44–46

○ = HINTS AND HOMEWORK HELP
for Exs. 7, 15, and 39 at classzone.com

SKILLS • PROBLEM SOLVING • REASONING

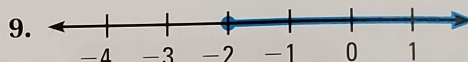
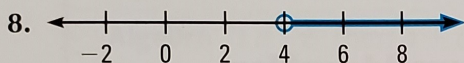
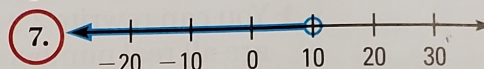
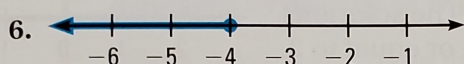
1. **VOCABULARY** Copy and complete: To graph $x < -8$, you draw a(n) ? circle at -8 , and you draw an arrow to the ?.

2. **WRITING** Are $x + 7 \geq 18$ and $x \geq 25$ equivalent inequalities? *Explain.*

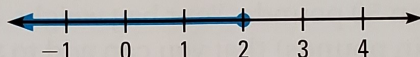
WRITING AND GRAPHING INEQUALITIES Write and graph an inequality that describes the situation.

3. The speed limit on a highway is 60 miles per hour.
4. You must be at least 16 years old to go on a field trip.
5. A child must be taller than 48 inches to get on an amusement park ride.

WRITING INEQUALITIES Write an inequality represented by the graph.



10. **◆ MULTIPLE CHOICE** Which inequality is represented by the graph?



(A) $x > 2$

(B) $x \geq 2$

(C) $x \leq 2$

(D) $x < 2$

SOLVING INEQUALITIES Solve the inequality. Graph your solution.

11. $x + 4 < 5$

12. $-8 \leq 8 + y$

13. $-1\frac{1}{4} \leq m + 3$

14. $n + 17 \leq 16\frac{4}{5}$

15. $w + 14.9 > -2.7$

16. $8.2 + v > -7.6$

17. $r - 4 < -5$

18. $1 \leq s - 8$

19. $-1\frac{1}{3} \leq p - 8\frac{1}{3}$

20. $q - 1\frac{1}{3} > -2\frac{1}{2}$

21. $2.1 \geq c - 6.7$

22. $d - 1.92 > -8.76$

23. **◆ MULTIPLE CHOICE** What is the solution of the inequality $m + 7 \geq -10$?

(A) $m \geq -3$

(B) $m \geq -17$

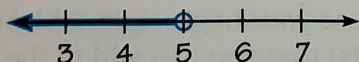
(C) $m \leq 3$

(D) $m \leq 17$

ERROR ANALYSIS Describe and correct the error in solving the inequality or in graphing the solution.

24.

$$\begin{aligned} x + 8 &< -3 \\ x + 8 - 8 &< -3 + 8 \\ x &< 5 \end{aligned}$$



25.

$$\begin{aligned} -17 &\leq x - 14 \\ -17 + 14 &\leq x - 14 + 14 \\ -3 &\leq x \end{aligned}$$

