

Write the word sentence as an inequality. (Section 8.1)

1. A number x plus 1 is less than -13 . 2. A number t minus 1.6 is at most 9.

Tell whether the given value is a solution of the inequality. (Section 8.1)

3. $12n < -2$; $n = -1$ 4. $y + 4 < -3$; $y = -7$

Graph the inequality on a number line. (Section 8.1)

5. $x > -10$ 6. $y \leq \frac{3}{5}$ 7. $w < 6.8$

Solve the inequality. (Section 8.2)

8. $x - 2 < 4$ 9. $g + 14 \geq 30$ 10. $h - 1 \leq -9$
 11. $s + 3 > -7$ 12. $v - \frac{3}{4} < 0$ 13. $\frac{3}{2} < p + \frac{1}{2}$

14. **WATERCRAFT** In many states, you must be at least 14 years old to operate a personal watercraft. Write an inequality that represents this situation. (Section 8.1)



15. **REASONING** The solution of $x - a > 4$ is $x > 11$. What is the value of a ? (Section 8.2)

16. **MP3 PLAYER** Your MP3 player can store up to 8 gigabytes of media. You transfer 3.5 gigabytes of media to the MP3 player. Write and solve an inequality that represents the amount of memory available on the MP3 player. (Section 8.2)

LIFEGUARDS NEEDED

Take Our Training Course NOW!!!

Lifeguard Training Requirements

- Swim at least 100 yards
- Tread water for at least 5 minutes
- Swim 10 yards or more underwater without taking a breath

17. **LIFEGUARD** Three requirements for a lifeguard training course are shown. (Section 8.1)

- a. Write and graph three inequalities that represent the requirements.
- b. You can swim 350 feet. Do you satisfy the swimming requirement of the course? Explain.