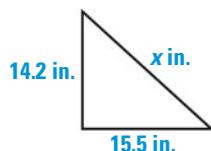
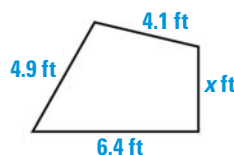


GEOMETRY Write and solve an inequality to find the possible values of x .

27. Perimeter < 51.3 inches



28. Perimeter ≤ 18.7 feet



29. **WRITING** Is it possible to check all the numbers that are solutions of an inequality? Does checking one solution guarantee that you have solved an inequality correctly? *Explain* your answers.

30. **CHALLENGE** Write and graph an inequality that represents the numbers that are *not* solutions of $x - 12 \geq 5.7$.

PROBLEM SOLVING

EXAMPLE 5

on p. 358
for Exs. 31–35

31. **INTERNET** You earn points from buying items at an Internet shopping site. You would like to redeem 2350 points to get an item for free, but you want to be sure to have more than 6000 points left over. What are the possible numbers of points you can have before making a redemption?

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32. **SPORTS RECORDS** In 1982 Wayne Gretsky set a new record for the greatest number of hockey goals in one season with 92 goals. Suppose that a hockey player has 59 goals so far in a season. What are the possible numbers of additional goals that the player can make in order to match or break Wayne Gretsky's record?

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33. **MULTI-STEP PROBLEM** In aerial ski competitions, athletes perform two acrobatic ski jumps, and the scores on both jumps are added together. The table shows your competitor's first and second scores and your first score.

Ski jump	Competitor's score	Your score
1	127.04	129.49
2	129.98	?

a. Write and solve an inequality to find the scores s that you can earn in your second jump in order to beat your competitor.

b. Will you beat your competitor if you earn 128.13 points? 126.78 points? 127.53 points? *Justify* your answers.



34. **TAKS REASONING** You want to buy a jacket at a clothing store, and you can spend at most \$30. You have a coupon for \$3 off any item at the store. Which inequality can you use to find the original prices p of jackets that you can buy?

- (A) $3 + p \geq 30$ (B) $30 + p \leq 3$ (C) $p - 3 \leq 30$ (D) $p - 30 \geq 3$

35. **TAKS REASONING** Describe a real-world situation that can be modeled by the inequality $x + 14 \geq 17$. *Explain* what the solution of the inequality means in this situation.