

3. Justify each step used in solving the given inequality:

$$4 - (x + 3) \leq 10$$

A. $4 - x - 3 \leq 10$ _____

B. $-x + 1 \leq 10$ _____

C. $-x \leq 9$ _____

D. $x \geq -9$ _____

Problem Solving/Application

1. The length of a rectangle is six less than twice the width. Its perimeter is 36 inches. Find the dimensions of the rectangle.
2. The greater of two consecutive integers is 15 more than twice the smaller. Find the integers.
3. Jan hiked up a hill at 4 mi/hr and back down at 6 mi/hr. Her total hiking time was 3 hours. How long did the trip up the hill take her?
4. The sum of two consecutive positive integers is at most 18. What are the integers?
5. For a particular phone company a long distance phone call costs \$3.25 for the first three minutes plus \$0.25 per minute for each minute or fractional part of a minute after the first three minutes. If “x” represents the number of minutes of the length of a call after the first three minutes, then $3.25 + 0.25x$ represents the cost of the call. If a particular customer of this phone company has \$7.50 to spend on a call, what is the maximum total time he can use to make a long distance call?
6. The total cost of renting a bike at the beach for “n” hours is give by the following:
 $5.00 + 1.50n = C$ If the total cost for the rental is \$11.00, how many hours did you rent the bike?
7. In the 2002 Winter Olympics, the United States won 10 more medals than Norway. The two countries won a total of 58 medals. How many medals did each country win? (Source: U.S. Olympic Committee)