

LESSON
1-10

Problem Solving
Introduction to Inequalities

Use the table.

1. Write an inequality that compares the population p of Los Angeles to the population of New York.
- _____

2. Write an inequality that compares the population p of Los Angeles to the population of Chicago.
- _____

Top 3 U.S. Cities by Population 2000

Rank	City	Population
1	New York	8,008,278
2	Los Angeles	p
3	Chicago	2,896,016

Write the correct answer.

3. Paul wants to ride his bike at least 30 miles this week to train for a race. He has already ridden 18 miles. How many more miles should Paul ride this week?
- _____

4. To avoid a service charge, Jose must keep more than \$500 in his account. His current balance is \$536, but he plans to write a check for \$157. Find the amount of the deposit d Jose must make to avoid a service charge.
- _____

Choose the letter for the best answer.

5. Mia wants to spend no more than \$10 on an ad in the paper. The first 10 words cost \$3. Find the amount of money m she has left to spend on the ad.

- A $m \geq 7$ C $m \leq 7$
B $m \leq 13$ D $m \geq 13$

7. To advance to the next level of a competition, Rachel must earn at least 180 points. She has already earned 145 points. Find the number of points p she needs to advance to the next level of the competition.

- A $p \leq 35$ C $p \geq 35$
B $p \leq 325$ D $p \geq 325$

6. An auto shop estimates parts and labor for a repair will cost less than \$200. Parts will cost \$59. Find the maximum cost c of the labor.

- F $c < \$141$ H $c > \$141$
G $c < \$259$ J $c > \$259$

8. The Conway's hiked more than 25 miles on their backpacking trip. If they hiked 8 miles on their last day, find how many miles m they hiked on the rest of the trip.

- F $m > 17$ H $m < 17$
G $m > 33$ J $m < 33$