

Name: _____

Hour: _____

I-10 Practice B Introduction to Inequalities

Compare each inequality. Write $<$ or $>$.

1. $7 + 10$ ___ 16

2. 21 ___ $4(5)$

3. $25 - 7$ ___ 19

4. 58 ___ $7(8)$

5. $-4(8)$ ___ -30

6. $3 - 8$ ___ -2

7. $7 + (-7)$ ___ -17

8. $9(-7)$ ___ -70

9. $-43 + (-18)$ ___ -23

Solve and graph each inequality.

10. $x + 4 > 9$



11. $c - 6 \leq 1$



12. $y + 3 \geq -8$



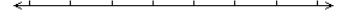
13. $3 + v < -5$



14. $7 + x \leq 10$



15. $s - 4 < -10$



16. $b - 2 \leq -5$



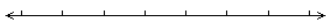
17. $7 + n > -2$



18. $r + 6 \geq -1$



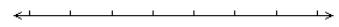
19. $-9 + w < -15$



20. $14 + k > 25$



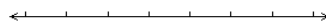
21. $a - 8 \geq -12$



22. $k + 3 \leq 0$



23. $n + 6 \geq 2$



24. $-1 + b \leq -1$



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I-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** $m \geq 13$

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** $c > \$259$

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** $p \geq 325$

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** $m < 33$