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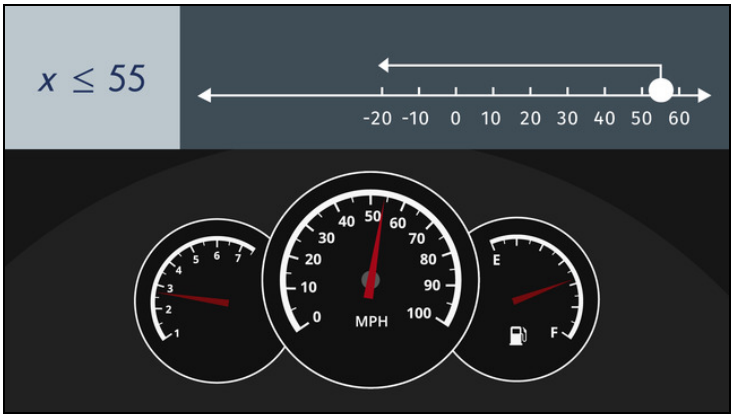
Inequalities and Their Graphs



1. **Translate the words into a mathematical sentence using inequality signs.**
2. Describe the process of graphing inequalities.
3. Explain the meaning of the graphs.
4. Determine all speeds that will not result in a speeding ticket.
5. Match the correct inequality with the graph.
6. Describe each situation using inequalities.

\+ with lots of tips, answer keys, and detailed answer explanations for all of the problems.

Translate the words into a mathematical sentence using inequality signs.

Match each inequality sign with its description.

x greater than y	A
x less than y	B
x less or equal to y	C
x greater or equal to y	D

1	$x \leq y$
2	$x = y$
3	$x \geq y$
4	$x < y$
5	$x > y$

Hints for solving these problems

1 of 6

Translate the words into a mathematical sentence using inequality signs.

Hint #1

Remember: the open side of the inequality sign points towards the larger quantity. The closed side points towards the smaller quantity.

Hint #2

$3 > 2$ is a true statement as well as $3 \geq 2$.

Answers and detailed answer explanations for these problems

1 of 6

Translate the words into a mathematical sentence using inequality signs.

Answer key: A—5 // B—4 // C—1 // D—3

The greater than and less than symbols help us to determine relative size between different quantities.

- When x is greater (larger) than y, we use the $x > y$ sign.
- When x is greater than or equal to y, we use the $x \geq y$ sign.
- When x is less (smaller) than y, we use the $x < y$ sign.
- When x is less than or equal to y, we use the $x \leq y$ sign.