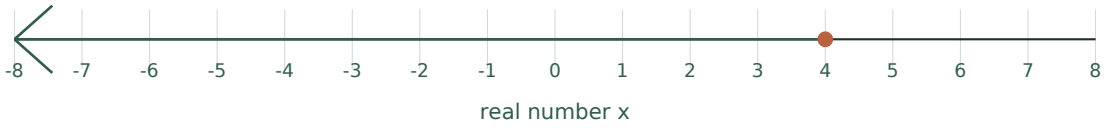
Solve One-Variable Inequalities and Graph Solution Sets

Worked graph



Number-line solution ray: continuation arrow points toward infinity. Filled endpoint includes the value; white endpoint excludes it.

Solve One-Variable Inequalities and Graph Solution Sets

Original worked example / unchanged complete key

Prompt: Solve $4x - 7 \leq 9$, graph the solution on a number line, and write it in interval notation.

Answer: Add 7 to both sides: $4x \leq 16$. Divide by 4 (positive, so no reversal): $x \leq 4$. On a number line, place a closed circle at 4 and shade to the left. Interval notation: $(-\infty, 4]$.