

Lesson 8-4 • Group 2

Reinforce Understanding**8.4 Small Group • Group 2**

I can write inequalities to represent real-world situations, explain what each part stands for, and build one for a situation I have not seen before.

Worked model

A club trip requires each member to save at least \$45. Write an inequality for the amounts that work.

1. Name the variable: let s = the dollars a member saves.
2. Find the key phrase: 'at least' means the amount can equal 45 or be more.
3. That phrase matches the symbol $\geq$, so write $s \geq 45$.
4. Test values: 45 works and 52 works, but 39 falls below the limit.

Answer: $s \geq 45$, so any amount of 45 dollars or more is a solution.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Identify the key phrase, symbol, and write the inequality for each situation.

Complete the table. Show how you found each value.

Situation	Key Phrase	Symbol	Inequality
A package weighs less than 50 pounds.			
You need at least \$25 to buy the game.			
No more than 30 students can join the club.			

Show your work

2. Test $x = 10$ in each inequality. Sort by whether it works.

Write the name of the correct group on each line.

Groups: $x = 10$ IS a solution $x = 10$ is NOT a solution

- _____ $x \geq 10$
- _____ $x \leq 15$
- _____ $x > 8$
- _____ $x > 10$
- _____ $x < 10$
- _____ $x \leq 5$