

Unit 7 Objective 5 Remediation

Write inequalities given real-world situations

For each of the following:

- Underline Key Words in the Problem
- Identify the Variable
- Write the Inequality
- Solve the Inequality
- Write Answer in Sentence Form

A high school auditorium can seat 450 people for graduation. The graduates will use 75 seats. Write and solve an inequality to describe the number of people (p) who can be seated in the auditorium.

p = number of people

Inequality: $p + 75 \leq 450$

$$\begin{array}{r} -75 \quad -75 \\ p + 75 \leq 450 \\ \hline p \leq 375 \end{array}$$

Sentence Form:

There can be at most 375 people seated in the auditorium.

Try These:

Ex. 1

Mrs. Reustle spent at most \$4.50 for lunch at the York Galleria Mall. She buys a salad from Salad Works for \$2.95. Write and solve an inequality that models how much Mrs. Reustle can spend on a drink (d) and stay within her spending limit.

Ex. 2

Kal can spend at most \$30 when he goes to Avalanche Express. He has to spend \$1.40 each way for a bus ride, through Rabbit Transit, and the night pass cost for Avalanche Express is \$18.00. Write an inequality that models how much Kal can spend on hot chocolate (h) and stay within his spending limit.

Ex. 3

Sara has \$60 for school supplies. She spends \$39.95 on a L.L. Bean backpack. Write and solve an inequality that models how much more Sara can spend on school supplies(s) and stay within her budget.

Ex. 4

Jeff can spend at most \$5.50 on lunch. Jeff spends \$3.95 on a hotdog and a soda. Write and solve an inequality that models how much Jeff can spend on dessert (d).