Equations and Inequalities Problem Solving

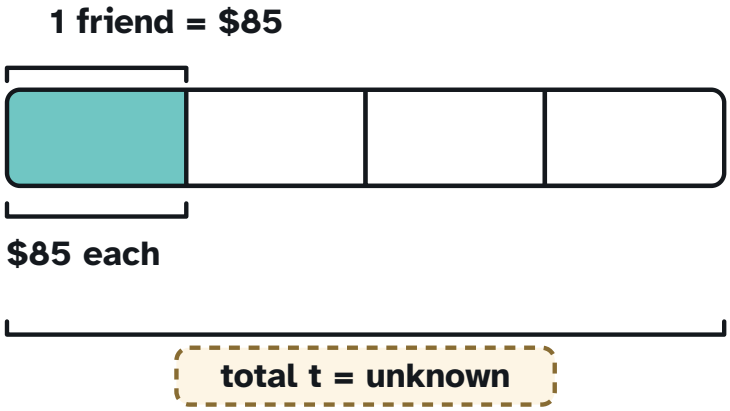
Model real-world problems with equations and inequalities, then solve and check them.

Name _____ **Date** _____

Tonight's spark

At a rec-center raffle, a prize was divided equally among 4 friends. Each friend got $85. How much was the whole prize?

Guess first: is the whole prize more than $85, or less?



Our class model: the equation-or-inequality check

Try it

Work it out on paper. Write one answer on each line.

1 **Which clue points to an inequality?**

A. exactly **B.** at most **C.** equals **D.** is the same as

My answer _____

2 **'Jo has exactly $12 to spend.' What kind of model fits?**

A. Neither one **B.** An inequality, because there is a limit

C. An equation, because exactly means equal **D.** Both at once

My answer _____

3 **'A bus holds at most 40 riders.' Which model shows the riders r?**

A. $r \leq 40$ **B.** $r = 40$ **C.** $r \geq 40$ **D.** $r > 40$

My answer _____

4 **A pizza costs $9 and you pay with $20. Your change is c, so 9 + c = 20. What is c?**

A. $29 **B.** $9 **C.** $180 **D.** $11

My answer _____

5 **Maria saves $5 a week and wants at least $40. Which inequality shows the weeks w?**

A. $5w \leq 40$ **B.** $5w = 40$ **C.** $5w \geq 40$ **D.** $w + 5 \geq 40$

My answer _____

Talk about it

Which clue word told you to use = and which told you to use an inequality symbol?

Home mission

Look at a store receipt. Say, "A total of $24 was split equally among 4 people." Can your student say if that is an equation or an inequality? Then try "at most $24."

If we get stuck, ask

- What words give the clue — 'equals/exactly' or 'at least/at most/more than/fewer than'?
- Let's write the model first, then solve it step by step.
- Does the answer make sense for real life? Could it be negative or a half person?

Do it on a screen

Scan or type the link. Same lesson, with hints.

eduwonderlab.com/lessons/8-7/homework.html

How did it feel? (optional)

Tricky Getting there Got it