LESSON MAKER PRO

What Does It Mean?

Connect inequality solutions to real choices.

GRADE 6 · 6.AF.B.20.a

6.AF.B.20.a "Interpret the solution of an inequality in the context of a problem."

NAME _____ DATE _____

THE BIG IDEA

An inequality's solution tells which values are allowed. Explain what those values mean in the situation, and decide whether the answer must be a whole number.

WORKED EXAMPLE

A club buys game passes. Use the table to find and interpret the allowed number of passes, x.

GAME PASSES

Item	Amount
Budget	$33
Price per pass	$11

1. Write the cost limit: $11x \le 33$.
2. Divide by 11: $x \le 3$.
3. Passes must be whole numbers.

Answer: The club can buy at most 3 passes.

PRACTICE 4 problems

1 Songs cost $6 each. You have $30. What does $x \le 5$ mean in $6x \le 30$?

ANSWER _____

2 You have 12 stickers and want at least 20. What does $x \ge 8$ mean in $12 + x \ge 20$?

ANSWER _____

3 A game prize takes more than 16 points. You have 10. What does $x > 6$ mean in $10 + x > 16$?

ANSWER _____

4 Each team has 2 players. There is room for at most 18 players. Solve $2x \le 18$, then tell what x means.

ANSWER _____

APPLY IT Show your work

1 A music app charges $2 per download. You have $34. Write and solve an inequality for x downloads. What does the solution mean?

WORK SPACE

ANSWER _____

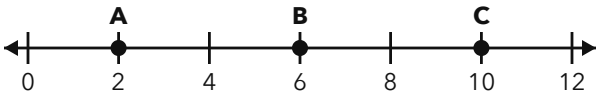
2 Your video is 14 minutes long. A playlist must last at least 26 minutes. Write and solve an inequality for x extra minutes. What does the solution mean?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A skate park prize requires at least 8 laps. The points show three riders' lap counts. Which riders qualify? Explain using $x \geq 8$.



WORK SPACE AND ANSWER

ANSWER KEY

What Does It Mean?

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Songs cost $6 each. You have $30. What does $x \le 5$ mean in $6x \le 30$?	**You can buy at most 5 whole songs.**
2	You have 12 stickers and want at least 20. What does $x \ge 8$ mean in $12 + x \ge 20$?	**You need at least 8 more stickers.**
3	A game prize takes more than 16 points. You have 10. What does $x > 6$ mean in $10 + x > 16$?	**You need at least 7 more points.**
4	Each team has 2 players. There is room for at most 18 players. Solve $2x \le 18$, then tell what x means.	**$x \le 9$; at most 9 complete teams can play.**

PART 2 · APPLY IT

1. **$2x \le 34$, so $x \le 17$. You can buy at most 17 downloads.** Divide the budget inequality by 2. The number of downloads must be a whole number.
2. **$14 + x \ge 26$, so $x \ge 12$. Add at least 12 minutes of video.** Subtract 14 from both sides to find the minimum extra time.

CHALLENGE

Only rider C qualifies because $10 \ge 8$. Riders A and B completed fewer than 8 laps.

Accept equivalent wording that correctly states the limit in context. For whole-number items, accept "at most" or "at least" when it includes the correct boundary.