

Grade 7 - Two-Step Inequalities - Test

Common Core 7.EE.B.4b · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test checks solving two-step inequalities, graphing solution sets on a number line, and interpreting solutions in context (Common Core 7.EE.B.4b). It has 9 questions worth 20 points in all. Show your work, because most questions give partial credit for correct steps.

About this test

- Grade: Grade 7
- Chapter: Two-Step Inequalities
- Standards: 7.EE.B.4b
- Time: 45 minutes
- Total: 20 points

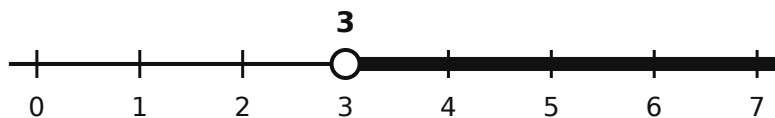
Question 1 - Two-step inequality [2 pts]

Solve $3x+5<20$ and graph the solution.

Question 2 - Reverse the symbol [2 pts]

Solve $-4x+3\geq-13$ and graph the solution.

Question 3 - Write from a graph [2 pts]



A graph.

Write the inequality shown by the graph. Then decide whether 3 and 3.5 are solutions.

Question 4 - Word problem [2 pts]

A school store sells pencils for \$0.25 each. Ethan has \$3 and wants to keep at least \$1. Write and solve an inequality for the number of pencils p .

Question 5 - Check solutions [2 pts]

Which of these values are solutions of $5x - 8 \leq 12$? Show the test for each: $x = 3$, $x = 4$, $x = 5$.

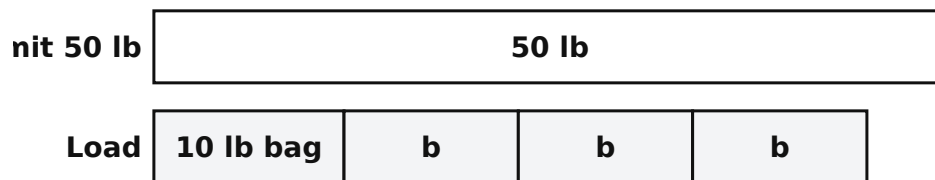
Question 6 - Find the error [2 pts]

Noah solved $-2x > 8$ and wrote $x > -4$. Explain his mistake and give the correct solution.

Question 7 - Phone plan [2 pts]

A plan costs \$20 plus \$0.06 per minute. Priya can spend at most \$27.50. Write and solve an inequality for the minutes m .

Question 8 - Weight limit [3 pts]



A shipping limit.

A delivery bike can carry at most 50 pounds. A bag weighs 10 pounds and each box weighs 6.5 pounds. (a) Write an inequality for the number of boxes b . (1 point) (b) Solve it. (1 point) (c) State the greatest number of boxes the bike can carry. (1 point)

Question 9 - Compare plans [3 pts]

Plan	Monthly fee	Per song
A	\$5	\$0.50
B	\$0	\$1.25

Two music plans.

(a) Write an inequality that says Plan A is cheaper than Plan B for s songs. (1 point) (b) Solve it. (1 point) (c) Explain what the solution means for a customer. (1 point)