

Algebra 1 - Linear Inequalities in One Variable - Test

Common Core A-REI.B.3, A-CED.A.1 · maths-pdf.fr/en/

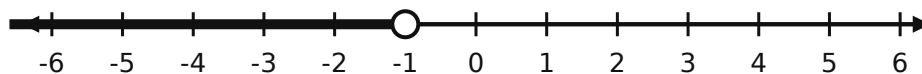
Name: _____ Class: _____ Date: ____/____/____

This 45-minute test on linear inequalities covers Common Core A-REI.B.3 and A-CED.A.1 and is worth 20 points. Work alone, show all steps, and use a calculator only if your teacher allows it. Partial credit is given for correct work, so write down your reasoning even when you are unsure of the final answer.

About this test

- Grade: Algebra 1
- Chapter: Linear Inequalities in One Variable
- Standards: A-REI.B.3, A-CED.A.1
- Time: 45 minutes
- Total: 20 points

Question 1 - Graphs and inequalities [2 pts]



Graph for question 1a.

- a. Write the inequality shown by the graph. (1 point)
- b. Graph $x \geq 2$ on a number line. (1 point)

Question 2 - Two-step inequality [2 pts]

Solve $4x - 7 > 13$.

Question 3 - Negative coefficient [2 pts]

Solve $-5x + 3 \leq 28$.

Question 4 - Variables on both sides [2 pts]

Solve $3(x+2) \geq 5x-4$.

Question 5 - And inequality [2 pts]

Solve $1 < 3x-5 < 10$ and graph the solution.

Question 6 - Or inequality [2 pts]

Solve $2x+1 \leq -3$ or $x-4 > 1$.

Question 7 - Savings goal [3 pts]

Weeks	Savings
0	\$35
5	\$75
10	\$115

Ethan's savings.

Ethan has \$35 and saves \$8 each week. He wants at least \$120.

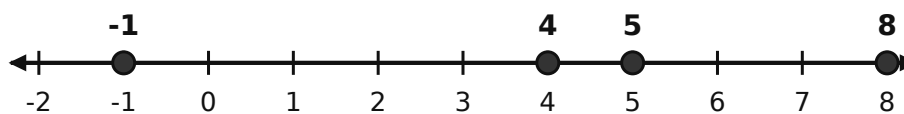
- Write an inequality for the number of weeks w . (1 point)
- Solve the inequality. (1 point)
- State the least whole number of weeks. (1 point)

Question 8 - Find the error [3 pts]

A student solved $-4x < 20$ and wrote $x < -5$.

- Describe the error. (1 point)
- Write the correct solution. (1 point)
- Check the correct solution with a test value. (1 point)

Question 9 - Test values [2 pts]



Test these values.

For which of the marked values is $2x - 3 < 7$ true? Show your work.