

Grade 6 - Inequalities on the Number Line - Worksheet

Common Core 6.EE.B.5, 6.EE.B.8 · maths-pdf.fr/en/

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

These 20 problems practice inequalities and their graphs (Common Core 6.EE.B.5 and 6.EE.B.8). You will test values, graph x greater or less than a number on a number line, write inequalities from words and graphs, and solve real-world problems about limits and goals.

Grade 6 · Common Core State Standards: **6.EE.B.5, 6.EE.B.8**

Exercise 1 - Is it a solution? (greater than)

Is 6 a solution of $x > 4$?

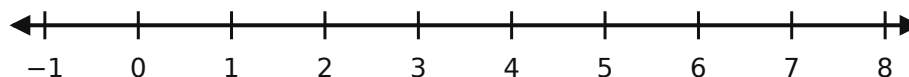
Exercise 2 - Is it a solution? (at least)

Is 4 a solution of $x \geq 9$?

Exercise 3 - Is it a solution? (expression)

Is 8 a solution of $x + 2 < 10$?

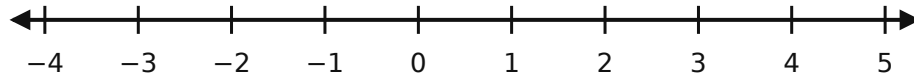
Exercise 4 - Graph $x > 3$



Number line.

Graph $x > 3$ on a number line.

Exercise 5 - Graph $x \leq 2$



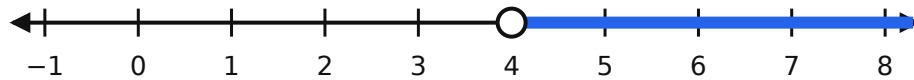
Number line.

Graph $x \leq 2$ on a number line.

Exercise 6 - Graph with a negative

Graph $x \geq -1$ on a number line.

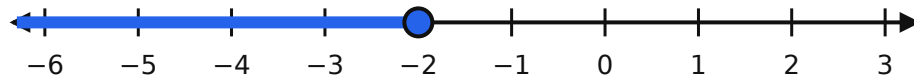
Exercise 7 - Write from a graph (open)



A ray starting at 4.

Write an inequality for the graph.

Exercise 8 - Write from a graph (closed)



A ray starting at -2.

Write an inequality for the graph.

Exercise 9 - Less than

Write an inequality for "a number x is less than 7."

Exercise 10 - At least

Write an inequality for "a number x is at least 12."

Exercise 11 - No more than

Write an inequality for "a number x is no more than 20."

Exercise 12 - More than

Write an inequality for "a number x is more than 15."

Exercise 13 - List solutions

List three solutions of $x > 5$.

Exercise 14 - Solutions with decimals

List three solutions of $x \geq 2.5$. Is 2.5 a solution?

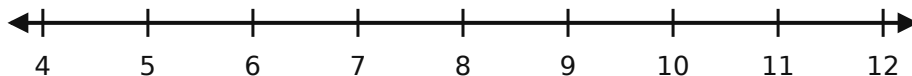
Exercise 15 - Speed limit

The speed limit on a highway is 65 miles per hour. Write an inequality for the legal speeds s and graph it on a number line from 0 to 80.

Exercise 16 - Elevator

An elevator can carry no more than 1,500 pounds. A group of 12 people weighs 1,380 pounds. Write an inequality for the allowed weight w and decide whether the group can ride.

Exercise 17 - Game points



Number line.

Maya needs at least 8 points to win a game. Write an inequality for the points p that win and graph it.

Exercise 18 - Book budget

Jamal has \$25. Each book costs \$4. The inequality $4b \leq 25$ shows how many books b he can buy. Test $b = 6$ and $b = 7$, then tell the greatest number of books he can buy.

Exercise 19 - Ride height

To ride a roller coaster, a child must be taller than 48 inches. Write an inequality for the height

h. Is 48 a solution? Is 48.5?

Exercise 20 - Infinitely many

Explain why the inequality $x > 3$ has infinitely many solutions.

Exercise 21 - Snow day

A school closes for a snow day when the temperature t is below 32°F . Write an inequality and graph it on a number line from 20 to 40. Is 32 a solution? Is 31.5?