

Grade 6 · Writing and Graphing Inequalities · Test Answer Key

Common Core 6.EE.B.5, 6.EE.B.8 · mathovore.fr

This answer key for the inequalities test gives a worked solution and a scoring guide for each of the 9 questions. Award partial credit as described, and total the score out of 20 points.

Grade 6 Common Core: 6.EE.B.5 · 6.EE.B.8

Question 1: Writing with Symbols (2 points)

- a. $x < 8$
- b. $y \geq 15$

Scoring: 1 point for each correct inequality.

Question 2: Testing Solutions (2 points)

- a. $5 > 5$ is false. **Not a solution**
- b. $7.5 \leq 7.5$ is true. **A solution**

Scoring: 1 point for each correct decision with a valid reason.

Question 3: Listing Solutions (2 points)

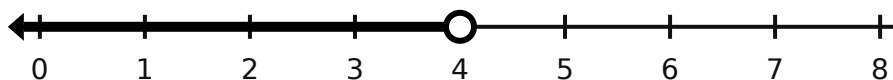
Any three numbers that are at least 10 work, for example **10, 12, and 25.5**. Any number below 10 is not a solution, for example **9.9**, because $9.9 \geq 10$ is false.

Scoring: 1 point for three valid solutions (10 counts); 1 point for a valid non-solution.

Question 4: Graphing an Inequality (2 points)

Open circle at 4, because $4 < 4$ is false, and shading to the left.

Scoring: 1 point for an open circle at 4; 1 point for shading to the left.



$$x < 4.$$

Question 5: Reading a Graph (2 points)

The closed circle at 2 means 2 is included, and the shading goes right: $x \geq 2$.

Scoring: 1 point for the correct symbol; 1 point for the correct number.

Question 6: Greater Than or Equal To (3 points)

- a. $3 > 3$ is false. **No**
- b. $3 \geq 3$ is true. **Yes**
- c. The graph of $x > 3$ has an open circle at 3; the graph of $x \geq 3$ has a closed circle at 3. Both are shaded to the right.

Scoring: 1 point for each part.

Question 7: Elevator Limit (3 points)

- a. $p \leq 12$
- b. $12 \leq 12$ is true. **Yes**
- c. People are counted in whole numbers, so half a person makes no sense. **p must be a whole number.**

Scoring: 1 point for each part.

Question 8: Bake Sale Goal (2 points)

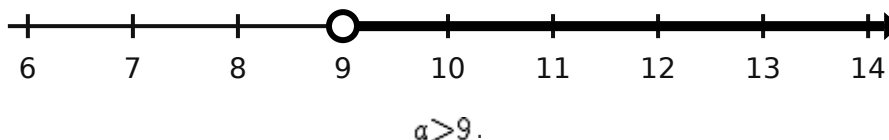
- a. $d \geq 150$
- b. $150 \geq 150$ is true, so **\$150 meets the goal**. $149.99 \geq 150$ is false, so **\$149.99 does not**.

Scoring: 1 point for the inequality; 1 point for both decisions.

Question 9: Game Rating (2 points)

Older than 9 does not include 9: $a > 9$. Open circle at 9 with shading to the right.

Scoring: 1 point for the inequality; 1 point for the correct graph.



Total
20 points