GCSE Maths: Inequalities on a number line (Foundation): worksheet

GCSE Maths - Inequalities - Foundation - Lesson 10.2

Name: _____ Date: _____ Score: _____

13 questions. Write your answers in the spaces. Answers and step-by-step help are free at **websink.site/gcse/maths/ch10-inequalities/foundation/inequalities-on-a-number-line/**

Exercise 10B Number lines (Non-calculator)

1 Write down the inequality shown on each number line.

(a)

Answer:

(b)

Answer:

(c)

Answer:

(d)

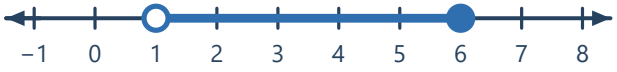
Answer:

2 Write down the inequality shown on each number line. Use *x* for the letter.

(a)

Answer:

(b)



Answer:

(c)

Answer:

(d)

Answer:

3 Show each inequality on a number line.

(a) $x > 3$

Answer:

(b) $x \leq -1$

Answer:

(c) $x < 0$

Answer:

(d) $x \geq 2$

Answer:

(e) $-1 < x \leq 3$

Answer:

(f) $2 \leq x < 5$

Answer:

4 Which of these inequalities does this number line show? $x < 3$, $x \leq 3$, $x > 3$, $x \geq 3$

Answer:

5 Is 3 a solution of each inequality?

(a) $x > 3$

Answer:

(b) $x \geq 3$

Answer:

(c) $x < 3$

Answer:

(d) $x \leq 3$

Answer:

6 Is the number in brackets a solution of the inequality?

(a) $x > -2$ (-1)

Answer:

(b) $x \leq 4$ (4)

Answer:

(c) $x < 0.5$ (1)

Answer:

(d) $x \geq -3$ (-5)

Answer:

7 Show each statement on a number line. Use x for the number.

(a) x is at least -2

Answer:

(b) x is less than 4

Answer:

(c) x is more than 0

Answer:

(d) x is at most 6

Answer:

8 A lift can carry at most 8 people. Let n be the number of people in the lift. Show the possible values of n on a number line and write an inequality using $\leq$ twice.

Answer:

9 A ride is only for people whose height h cm is at least 110 cm but less than 195 cm. Write this as an inequality and show it on a number line.

Answer:

10 Zoe says this number line shows $x < 4$.

What mistake has she made? Write down the inequality that is actually shown.

Answer:

11 Explain the difference between $x > 3$ and $x \geq 3$. Say what the number lines look like.

Answer:

12 Four whole numbers are shown on this number line.

Write down the four numbers, and an inequality for n using $\leq$ twice.

Answer:

13 The number line for $x > -1$ and the number line for $x \leq 4$ are drawn together.

Write down the single inequality that gives the values satisfying **both**.

Answer:

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