



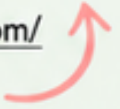
JP Maths

Revision



Attempt the paper
before watching the
solutions!

[https://www.youtube.com/
@JPMathsRevision](https://www.youtube.com/@JPMathsRevision)



FOUNDATION / HIGHER TIER

Linear Inequalities



INSTRUCTIONS

- Use **black ink** or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.



INFORMATION

- The marks for **each** question are shown in brackets– *use this as a guide as to how much time to spend on each question.*



ADVICE

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.



You've got this!

1. For each of the following, match the statement to the correct inequality:

x is greater than 2

$$x < -4$$

x is less than or equal to 2

$$x \geq 4$$

x is at least 4

$$-4 \leq x \leq 2$$

x is no more than 4

$$x > 2$$

x is less than than -4

$$x < 4$$

x is between -4 and 2 inclusive

$$x \leq 2$$

(Total for Question 1 is 2 marks)

2. $x > 3$

Write down two possible integer values of x

.....
(Total for Question 2 is 1 mark)

3. $x \leq -2$

Write down three possible integer values of x

.....
(Total for Question 3 is 1 mark)

4. $-2 < x \leq 3$

Write down all possible integer values of x

.....
(Total for Question 4 is 1 mark)

5. Solve $x + 4 > 9$

.....
(Total for Question 5 is 1 mark)

6. Solve $x - 7 \leq 5$

.....
(Total for Question 6 is 1 mark)

7. Solve $2x + 1 < 7$

.....
(Total for Question 7 is 2 marks)

8. Solve $3x - 5 \geq 10$

.....
(Total for Question 8 is 2 marks)

9. Solve $\frac{x}{4} > 3$

.....
(Total for Question 9 is 2 marks)

10. Solve $\frac{x+2}{3} \leq 5$

.....
(Total for Question 10 is 2 marks)

11. Solve $4x + 3 < 2x + 11$

.....
(Total for Question 11 is 2 marks)

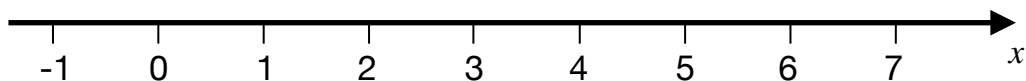
12. Solve $7x - 2 \geq 3x + 10$

.....
(Total for Question 12 is 2 marks)

13. Solve $5 - 2x < 11$

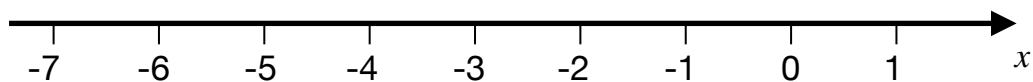
.....
(Total for Question 13 is 2 marks)

14. On the number line, show the inequality $x > 3$.



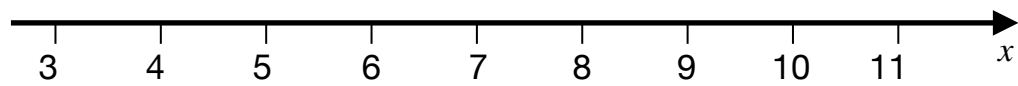
(Total for Question 14 is 1 mark)

15. On the number line, show the inequality $x \leq -2$.



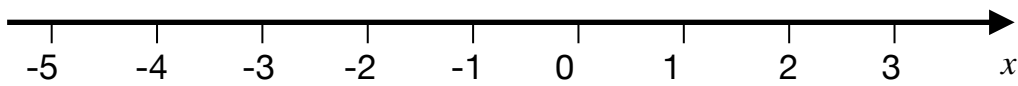
(Total for Question 15 is 1 mark)

16. On the number line, show the inequality $x \geq 6$.



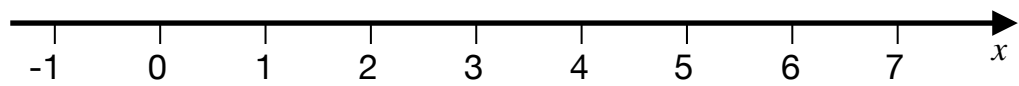
(Total for Question 16 is 1 mark)

17. On the number line, show the inequality $-4 \leq x < 2$.



(Total for Question 17 is 1 mark)

18. On the number line, show the inequality $0 < x \leq 5$.



(Total for Question 18 is 1 mark)

19. Solve $2 < 2x < 10$

.....
(1)

Write down possible integer values of x

.....
(1)

(Total for Question 19 is 2 marks)

20. Solve $-6 \leq 3x < 9$

.....
(1)

Write down possible integer values of x

.....
(1)

(Total for Question 20 is 2 marks)

21. Solve $3 < 2x - 1 < 10$

.....
(2)

Write down possible integer values of x

.....
(1)

(Total for Question 21 is 3 marks)

22. Solve $-5 \leq 4x + 3 < 11$

.....
(2)

Write down possible integer values of x

.....
(1)

(Total for Question 22 is 3 marks)

23. A teacher wants students to score at least 80 marks on a test.

A student has already scored 53 marks.

Each question is worth 3 marks.

Write and solve an inequality to find how many more complete questions they must answer correctly.

.....
(Total for Question 23 is 3 marks)

24. A lift can safely carry no more than 500 kg.

The lift already contains 3 adults weighing 72 kg each.

Children each weigh 35 kg.

Write and solve an inequality to find the maximum number of children.

.....
(Total for Question 24 is 3 marks)

25. Solve $-2x < 8$

.....
(Total for Question 25 is 2 marks)

26. Solve $-5x \geq 15$

.....
(Total for Question 26 is 2 marks)

27. Solve $12 - 3x > 0$

.....
(Total for Question 27 is 2 marks)

28. Solve $-2(3x - 1) \leq 10$

.....
(Total for Question 28 is 2 marks)
