



JP Maths

Revision



Attempt the paper
before watching the
solutions!

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



FOUNDATION / HIGHER TIER

Standard Form



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. Write 45000 in standard form

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

2. Write 0.00067 in standard form

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

3. Write 8.3×10^5 as an ordinary number

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

4. Write 4.91×10^{-3} as an ordinary number

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

5. Write 7,200,000 in standard form

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

6. Write 0.000000841 in standard form

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

7. Write 2.6×10^{-1} as an ordinary number

.....
(Total for Question 7 is 1 mark)

8. Write 9.04×10^7 as an ordinary number

.....
(Total for Question 8 is 1 mark)

9. Write these numbers in order of size from smallest to largest:

57×10^5

5.7×10^2

0.00057

5.7×10^5

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

10. Write these numbers in order of size from smallest to largest:

8.2×10^{-1}

82×10^{-5}

0.0082

8.2×10^{-6}

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

11. Calculate:

$$(5 \times 10^4) \times (3 \times 10^{-2})$$

Give your answer in standard form.

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

12. Calculate:

$$(5 \times 10^6) \times (2 \times 10^3)$$

Give your answer in standard form.

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

13. Calculate:

$$(3.2 \times 10^5) \div (8 \times 10^{-2})$$

Give your answer in standard form.

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

14. Calculate:

$$(9 \times 10^{-3}) \div (3 \times 10^2)$$

Give your answer in standard form.

.....
(Total for Question 14 is 2 marks)

15. The mass of a grain of sand is 4.6×10^{-5} g.

A container holds 8.2×10^6 grains.

Calculate the total mass.

Give your answer in standard form.

.....
(Total for Question 15 is 3 marks)

16. Calculate:

$$\frac{6.8 \times 10^9}{4 \times 10^3}$$

Give your answer in standard form.

.....
(Total for Question 16 is 2 marks)

17. Calculate:

$$(3 \times 10^5) + (4 \times 10^5)$$

Give your answer in standard form.

.....
(Total for Question 17 is 2 marks)

18. Calculate:

$$(7.2 \times 10^6) - (1.8 \times 10^4)$$

Give your answer in standard form.

.....
(Total for Question 18 is 3 marks)

19. Calculate:

$$(4.5 \times 10^4) + (3 \times 10^3)$$

Give your answer in standard form.

.....
(Total for Question 19 is 3 marks)

20. Calculate:

$$(8.2 \times 10^{-3}) - (5 \times 10^{-4})$$

Give your answer in standard form.

.....
(Total for Question 20 is 3 marks)

21. The diameter of Mars is 6.78×10^3 km.

The diameter of Jupiter is 1.40×10^5 km.

How many times bigger is Jupiter than Mars?

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

22. The mass of one electron is 9.11×10^{-31} kg.

What is the total mass of 5×10^{12} electrons

Give your answer in standard form.

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