



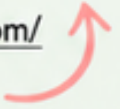
JP Maths

Revision



Attempt the paper
before watching the
solutions!

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



FOUNDATION / HIGHER TIER

Error Intervals



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. A length, x , is measured as 8 cm to the nearest centimetre.

Write down the error interval for x .

$$< x \leq$$

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

2. A mass, m , is measured as 42 kg to the nearest kilogram.

Write down the error interval for m .

$$< m \leq$$

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

3. A time, t , is measured as 3.7 seconds to 1 decimal place.

Write down the error interval for t .

$$< t \leq$$

.....
(Total for Question 3 is 2 marks)

4. A distance, d , is measured as 12.4 m to 1 decimal place.

Write down the error interval for d .

.....

(Total for Question 4 is 2 marks)

5. A temperature, T , is measured as 18.62°C to 2 decimal places.

Write down the error interval for T .

.....

(Total for Question 5 is 2 marks)

6. A volume, V , is measured as 7.384 litres to 3 decimal places.

Write down the error interval for V .

.....

(Total for Question 6 is 2 marks)

7. A height, h , is measured as 150 cm to the nearest 10 cm.

Write down the error interval for h .

.....

(Total for Question 7 is 2 marks)

8. A population, P , is estimated as 2,350 to the nearest 10.

Write down the error interval for P .

.....

(Total for Question 8 is 2 marks)

9. A distance, d , is measured as 4,600 m to the nearest 100 m.

Write down the error interval for d .

.....

(Total for Question 9 is 2 marks)

10. A length, x , is measured as 25 mm to the nearest 5 mm.

Write down the error interval for x .

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

11. A mass, M , is measured as 80 g to the nearest 10 g.

Write down the error interval for M .

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

12. A speed, x , is measured as 3.50 m/s to 3 significant figures.

Write down the error interval for x .

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

13. A weight, W, is measured as 0.087 kg to 2 significant figures.

Write down the error interval for W.

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

14. A distance, D, is measured as 6,300 m to 2 significant figures.

Write down the error interval for D.

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

15. A number lies in the interval

$$45.5 \leq x < 46.5$$

What value would x be recorded as if it were rounded to the nearest whole number?

.....
(Total for Question 15 is 2 marks)

16. A number lies in the interval

$$7.35 \leq x < 7.45$$

What value would be recorded as if it were rounded to 1 decimal place?

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

17. A number lies in the interval

$$995 \leq x < 1005$$

What value would be recorded as if it were rounded to the nearest 10?

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

Higher Only

18. A length, x , is recorded as 4.8 m, truncated to 1 decimal place.

Write down the error interval for x .

.....
(Total for Question 18 is 2 marks)

Higher Only

19. A calculator display shows only the first 3 digits of a positive number, N .

The display shows 4.38

Write down the error interval for N .

.....
(Total for Question 19 is 2 marks)
