JP Maths Revision

ERROR INTERVALS

FOUNDATION / HIGHER TIER

Attempt the paper before watching the solutions!

https://www.youtube.com/@JPMathsRevision

Name: _____ Date: _____

1. A length, x, is measured as 8 cm to the nearest centimetre.
Write down the error interval for x.

..... $< x \leq$ ..... **(2 marks)**

2. A mass, m, is measured as 42 kg to the nearest kilogram.
Write down the error interval for m.

..... $< m \leq$ ..... **(2 marks)**

3. A time, t, is measured as 3.7 seconds to 1 decimal place.
Write down the error interval for t.

..... $< t \leq$ ..... **(2 marks)**

4. A distance, d, is measured as 12.4 m to 1 decimal place.
Write down the error interval for d.

..... $< d \leq$ ..... **(2 marks)**

5. A temperature, T, is measured as 18.62°C to 2 decimal places.
Write down the error interval for T.

..... $< T \leq$ ..... **(2 marks)**

6. A volume, V, is measured as 7.384 litres to 3 decimal places.
Write down the error interval for V.

..... $< V \leq$ ..... **(2 marks)**

7. A height, h, is measured as 150 cm to the nearest 10 cm.
Write down the error interval for h.

..... $< h \leq$ ..... **(2 marks)**

8. A population, P, is estimated as 2,350 to the nearest 10.
Write down the error interval for P.

..... $< P \leq$ ..... **(2 marks)**

9. A distance, d, is measured as 4,600 m to the nearest 100 m.
Write down the error interval for d.

..... $< d \leq$ ..... **(2 marks)**

10. A length, x, is measured as 25 mm to the nearest 5 mm.
Write down the error interval for x.

..... $< x \leq$ ..... **(2 marks)**

11. A mass, M, is measured as 80 g to the nearest 10 g.
Write down the error interval for M.

..... $< M \leq$ ..... **(2 marks)**

12. A speed, x, is measured as 3.50 m/s to 3 significant figures.
Write down the error interval for x.

..... $< x \leq$ ..... **(2 marks)**

13. A weight, W, is measured as 0.087 kg to 2 significant figures.
Write down the error interval for W.

..... $< W \leq$ ..... **(2 marks)**

14. A distance, D, is measured as 6,300 m to 2 significant figures.
Write down the error interval for D.

..... $< D \leq$ ..... **(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?

$x =$ ..... **(2 marks)**

16. A number lies in the interval

$$7.35 \leq x < 7.45$$

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

$x =$ ..... **(2 marks)**

17. A number lies in the interval

$$995 \leq x < 1005$$

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

$x =$ ..... **(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.

..... $< x \leq$ ..... **(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.

..... $< N \leq$ ..... **(2 marks)**