

Name

Class



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# Error intervalles

(9 – 1) Topic booklet

## HIGHER

These questions have been collated from previous years GCSE Mathematics papers.

**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

### 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.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

### 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.

**Answer ALL questions**  
**Write your answers in the space provided.**  
**You must write down all the stages in your working.**

- 2 The length,  $L$  cm, of a line is measured as 13 cm correct to the nearest centimetre.

Complete the following statement to show the range of possible values of  $L$

.....  $\leq L <$  .....

Specimen 1 – Paper 3H

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

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- 4 Jim rounds a number,  $x$ , to one decimal place.  
The result is 7.2

Write down the error interval for  $x$ .

Specimen 2 – Paper 3H

**(Total for Question 4 is 2 marks)**

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- 5 Jess rounds a number,  $x$ , to one decimal place.  
The result is 9.8

Write down the error interval for  $x$ .

.....  
(2)

November 2017 – Paper 3H

**(Total for Question 5 is 2 marks)**

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6 Sally used her calculator to work out the value of a number  $y$ .

The answer on her calculator display began

8.3

Complete the error interval for  $y$ .

$$\dots\dots\dots \leq y < \dots\dots\dots$$

June 2019 – Paper 2H

**(Total for Question 6 is 2 marks)**

7 A number,  $n$ , is rounded to 2 decimal places.

The result is 4.76

Using inequalities, write down the error interval for  $n$ .

$$\dots\dots\dots$$

June 2017 – Paper 2H

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

9 Martin truncates the number  $N$  to 1 digit.

The result is 7

Write down the error interval for  $N$ .

$$\dots\dots\dots$$

November 2018 – Paper 2H

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

**11** Freya writes down the value of  $x$ , correct to 1 decimal place.

She writes  $x = 6.4$

Complete the error interval for  $x$ .

.....  $\leq x <$  .....

November 2021 – Paper 3H

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

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**12** Martin used his calculator to work out the value of a number  $P$ .

He wrote down the first two digits of the answer on his calculator.

He wrote down 1.2

Complete the error interval for  $P$ .

.....  $\leq P <$  .....

November 2022 – Paper 3H

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

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