

Error Intervals

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **23**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** The height, h cm, of a houseplant is 38 cm correct to the nearest centimetre.
Write down the error interval for h .

.....
(2)

(Total for Question 1 is 2 marks)

- 2** Amara weighs a bag of apples.
Her scales give the weight, a kg, rounded to one decimal place.
The scales show 2.4 kg.
Using inequalities, write down the error interval for a .

.....
(2)

(Total for Question 2 is 2 marks)

- 3** The temperature in a greenhouse is $T^{\circ}\text{C}$.
 $T = 15.2$ correct to 1 decimal place.
Complete the error interval for T .

..... $\leq T <$

(2)

(Total for Question 3 is 2 marks)

- 4** $w = 12.84$ correct to 2 decimal places.
Write down the error interval for w .

.....

(2)

(Total for Question 4 is 2 marks)

- 5** A number x is 400 correct to 1 significant figure.
Write down the error interval for x .

.....

(2)

(Total for Question 5 is 2 marks)

- 6 $y = 3600$ correct to 2 significant figures.
Complete the error interval for y .

..... $\leq y <$

(2)

(Total for Question 6 is 2 marks)

- 7 The trip meter in Kofi's car shows distances truncated to 1 decimal place.
At the end of a journey, the trip meter shows 2.9 miles.
The distance of the journey is d miles.
Write down the error interval for d .

.....

(2)

(Total for Question 7 is 2 marks)

- 8 Bilal's exact age is A years.
Bilal says, 'I am 14 years old.'
Bilal gives his age as the number of **complete** years he has lived.
Complete the error interval for A .

..... $\leq A <$

(2)

(Total for Question 8 is 2 marks)

- 9** A bank works out the interest, $\pounds i$, on Asha's savings account.
The bank pays only whole pennies. It does not round: any part of a penny is ignored.
The bank pays Asha $\pounds 12.36$ interest.
Complete the error interval for i .

..... $\leq i <$

(2)

(Total for Question 9 is 2 marks)

- 10** The weight, w kg, of a bag of flour is 1.5 kg to the nearest 100 g.
What is the error interval for the weight in kilograms?

.....

(2)

(Total for Question 10 is 2 marks)

11 The mass, m kg, of a parcel is 3 kg correct to the nearest kg.

(a) Write down the error interval for m .

.....
(2)

(b) Ali says,
 'The parcel could have a mass of 3.5 kg.'
Is Ali correct?
Give a reason for your answer.

.....
.....
(1)

(Total for Question 11 is 3 marks)