

Topic Test 1 (20 minutes)

Rounding - Higher

1 The attendance at a football match is 30 400, to 3 significant figures.

1 (a) Circle the minimum possible attendance.

[1 mark]

30 349

30 350

30 394

30 395

1 (b) Circle the maximum possible attendance.

[1 mark]

30 404

30 405

30 449

30 450

2 A bag of sugar has a mass of 500 g, to the nearest 10 g

Work out the upper bound of the mass of four of these bags.

[2 marks]

Answer _____ g

3 A piece of wood measures 0.45 m, to 2 decimal places.

Use inequalities to write down the error interval of the length due to rounding.

[2 marks]

Answer _____

4 Two performances of a show are each attended by 175 people, to the nearest 5
Work out the maximum possible difference between the numbers of people attending.

[2 marks]

Answer _____

5 The number of students in a year is

- 250 to 2 significant figures
- 200 to 1 significant figure.

How many students could there be?

Give all the possible answers.

[2 marks]

Answer _____

6 Mo says that he is 24 years old.

Use inequalities to write down the error interval of his age due to truncating.

[2 marks]

Answer _____

7 A carton of cream contains 150 ml, to the nearest ml
Emma assumes the measurement is exact.

She needs 150 ml of cream.

Work out the maximum possible percentage error due to her assumption.

[3 marks]

Answer _____ %

8 The tallest person in a room is 195.6 cm
The smallest is 150.2 cm

Both measurements are given to 1 decimal place.

Work out the maximum possible difference in their heights.

[2 marks]

Answer _____ cm

9 A container holds 12 litres of bubble bath, to the nearest litre.
It is used to completely fill bottles that hold 0.25 litres each, to 2 decimal places.
Work out how many bottles can **definitely** be completely filled.
You **must** show your working.

[3 marks]

Answer _____