

- 1** Violet and Wilfred recorded their times to run 200 m, correct to the nearest second. Violet took 36 seconds and Wilfred took 39 seconds.

Work out the upper bound of the difference between their times.

..... s [2]

[Total: 2]

- 2** The length, l cm, of a bicycle is 96 cm, correct to the nearest centimetre.

Complete this statement about the value of l .

..... $\leq l <$ [2]

[Total: 2]

- 3** The length, l metres, of a piece of rope is 30.7 m, correct to 1 decimal place.

Complete this statement about the value of l .

..... $\leq l <$ [2]

[Total: 2]

- 4 Neha has a piece of ribbon of length 23 cm, correct to the nearest cm.
From this ribbon she cuts off a piece with length 87 mm, correct to the nearest mm.

Work out the lower bound and the upper bound for the length of the remaining ribbon.
Give your answer in centimetres.

Lower bound = cm

Upper bound = cm [3]

[Total: 3]

- 5 The mass of an aircraft, m tonnes, is 473 tonnes, correct to the nearest tonne.

Complete this statement about the value of m .

..... $\leq m <$ [2]

[Total: 2]

- 6 The height, h metres, of a fence post is 2.43 m, correct to the nearest centimetre.

Complete the statement about the value of h .

..... $\leq h <$ [2]

[Total: 2]

- 7 At a football match, there are 29 800 people, correct to the nearest 100.

- (a) At the end of the football match, the people leave at a rate of 400 people per minute, correct to the nearest 50 people.

Calculate the lower bound for the number of minutes it takes for all the people to leave.

..... min [3]

- (b) At a cricket match there are 27 500 people, correct to the nearest 100.

Calculate the upper bound for the difference between the number of people at the football match and at the cricket match.

..... [2]

[Total: 5]

- 8 The distance between two towns is 600 km, correct to the nearest 10 km.
A car takes 8 hours 40 minutes, correct to the nearest 10 minutes, to travel this distance.

Calculate the lower bound for the average speed of the car in km/h.

..... km/h [3]

[Total: 3]

- 9 Virat has 200 metres of wire, correct to the nearest metre.
He cuts the wire into n pieces of length 3 metres, correct to the nearest 20 centimetres.

Calculate the largest possible value of n .

$n = \dots\dots\dots$ [3]

[Total: 3]

10 $A = \frac{b \times h}{2}$

$A = 10$, correct to the nearest whole number.

$h = 4$, correct to the nearest whole number.

Work out the upper bound for the value of b .

$\dots\dots\dots$ [3]

[Total: 3]