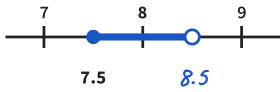


Limits of Accuracy

ANSWERS

1

A pencil is 8 cm long to the nearest centimetre. Find the lower bound and the upper bound.



Bounds 7.5 cm and 8.5 cm

2

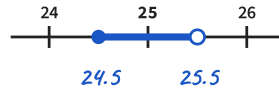
A letter weighs 60 g to the nearest 10 g. Find the lower bound and the upper bound.



Bounds 55 g and 65 g

3

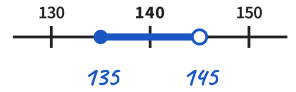
A pool is 25 m long to the nearest metre. Find the lower bound and the upper bound.



Bounds 24.5 m and 25.5 m

4

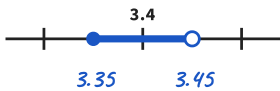
A door is 140 cm wide to the nearest 10 cm. Find the lower bound and the upper bound.



Bounds 135 cm and 145 cm

5

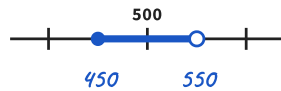
A rope is 3.4 m long to 1 decimal place. Find the lower bound and the upper bound.



Bounds 3.35 m and 3.45 m

6

A jug holds 500 ml to the nearest 100 ml. Find the lower bound and the upper bound.



Bounds 450 ml and 550 ml

7

A race takes 12.6 s to 1 decimal place. Find the lower bound and the upper bound.

Bounds 12.55 s and 12.65 s

8

A crowd is 2000 people to the nearest thousand. Find the lower bound and the upper bound.

Bounds 1500 people and 2500 people

Limits of Accuracy further practice

ANSWERS

9

A bag of rice weighs 2.5 kg, to 1 decimal place. Find the lower bound and the upper bound.

half of 0.1 is 0.05

Bounds 2.45 kg and 2.55 kg

10

A bus journey takes 40 minutes, to the nearest 5 minutes. Find the lower bound and the upper bound.

half of 5 is 2.5

Bounds 37.5 and 42.5 min

11

A length has a lower bound of 6.35 m and an upper bound of 6.45 m. What was the length rounded to, and to what accuracy?

Length 6.4 m

Accuracy 1 decimal place

12

A recipe needs 250 g of butter, to the nearest 10 g. Ben's butter weighs 244 g. Could Ben's butter be the right amount? Explain.

the lower bound is 245 g

Answer No, 244 g is too little

13

A fence panel is 1.8 m wide, to the nearest 10 cm. Find the lower bound and the upper bound of its width in centimetres.

1.8 m = 180 cm, half of 10 is 5

Bounds 175 cm and 185 cm

14

Parcel A weighs 4 kg, to the nearest kg. Parcel B weighs 4.3 kg, to 1 decimal place. Could the two parcels weigh exactly the same? Show how you know.

A: 3.5 to 4.5, B: 4.25 to 4.35

Answer Yes, for example both 4.3 kg

15

A race is won in 9.8 seconds, to 1 decimal place. Which of these could be the actual winning time in seconds?

9.74 9.75 9.849 9.85 9.9

9.75 ≤ time < 9.85

Answer 9.75 and 9.849

16

A nail is 7.2 cm long, to 1 decimal place. Ella says the upper bound is 7.249 cm. Is Ella right? Explain.

7.2499 also rounds to 7.2

Answer No, it is 7.25 cm