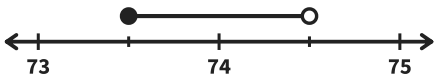
Limits of accuracy

1

A table is 74 cm long, to the nearest cm. Find the lower bound and the upper bound.



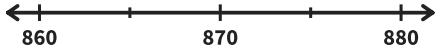
half of 1: 0.5

lower bound:

upper bound:

2

A van's load is 870 kg, to the nearest 10 kg. Find the lower bound and the upper bound.



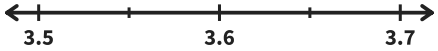
half of 10:

lower bound:

upper bound:

3

A kayak is 3.6 m long, to 1 decimal place. Find the lower bound and the upper bound.



half of 0.1:

lower bound:

upper bound:

4

A running track is 400 m long, to the nearest 100 m. Find the lower bound and the upper bound.

half of 100:

Bounds

5 *Notice the change!*

Nadia walks 46 m, then 38 m. Both are to the nearest metre. Find the greatest possible total distance.

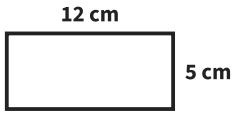
upper bounds:

add:

Answer

6

This tile is 12 cm by 5 cm, both to the nearest cm. Find its least possible perimeter.



lower bounds:

perimeter:

Answer

7

A plant is 50 cm tall, to the nearest 10 cm. Owen says the bounds are 49.5 cm and 50.5 cm. Explain his mistake.

Bounds

8

A gap is 65 cm wide and a fridge is 63 cm wide, both to the nearest cm.
Will the fridge definitely fit in the gap?

fridge, greatest:

gap, least:

Answer

Limits of accuracy *further practice*

9

A suitcase weighs 7.4 kg, to 1 decimal place. Find the lower bound and the upper bound.

Answer _____

10

A film lasts 35 minutes, to the nearest 5 minutes. Find the lower bound and the upper bound.

Answer _____

11

A fence has three panels: 1.8 m, 1.8 m and 2.4 m, each to 1 decimal place. Find the least possible total length of the fence.

Answer _____

12

A square mat has sides of 15 cm, to the nearest cm. Find its greatest possible perimeter.

Answer _____

13

A length has a lower bound of 8.5 cm and an upper bound of 9.5 cm. What was it rounded to, and to what accuracy?

Answer _____

14

A box holds 12 tins of beans. Each tin weighs 400 g, to the nearest 10 g. Find the greatest possible mass of the 12 tins, in kg.

Answer _____

15

A lift's limit is 600 kg, to the nearest 10 kg. Seven bags each weigh 85 kg, to the nearest kg. Is the load definitely under the limit?

Answer _____

16

A path is a 2.4 m slab, to 1 decimal place, and a 75 cm slab, to the nearest 5 cm, end to end. Find the greatest possible length of the path, in metres.

Answer _____