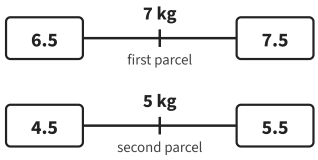
Bounds in calculations

1

Two parcels are 7 kg and 5 kg, each to the nearest kg. Find the **greatest** possible total mass.

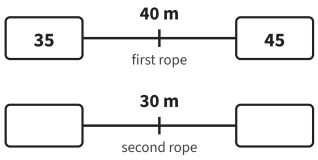


Greatest total = 7.5 + ☐

Answer _____ kg

2

Two ropes are 40 m and 30 m, each to the nearest 10 m. Find the **greatest** possible total length.

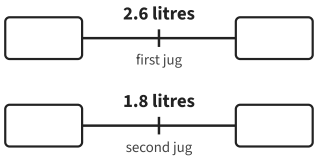


Greatest total = ☐ + ☐

Answer _____ m

3 *Notice the change!*

Two jugs hold 2.6 litres and 1.8 litres, each to 1 decimal place. Find the **least** possible total.

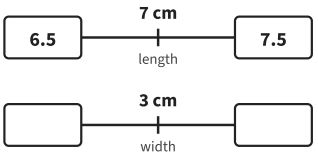


Least total = ☐ + ☐

Answer _____ litres

4 *Notice the change!*

A rectangle is 7 cm by 3 cm, each to the nearest cm. Find the **greatest** possible area.

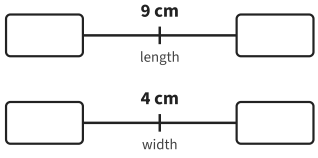


Greatest area = ☐ × ☐

Answer _____ cm²

5 *Notice the change!*

A rectangle is 9 cm by 4 cm, each to the nearest cm. Find the **least** possible area.

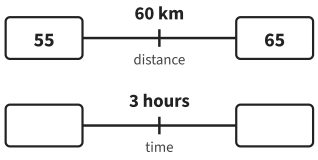


Least area = ☐ × ☐

Answer _____ cm²

6 *Notice the change!*

A boat sails 60 km, to the nearest 10 km, in 3 hours, to the nearest hour. Find the **greatest** possible average speed.

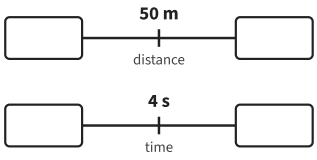


Greatest speed = ☐ ÷ ☐

Answer _____ km/h

7 *Notice the change!*

A drone flies 50 m, to the nearest 10 m, in 4 s, to the nearest second. Find the **least** possible speed.

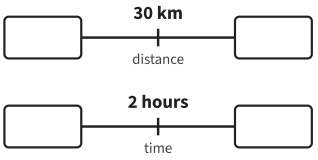


Least speed = ☐ ÷ ☐

Answer _____ m/s

8

A bus travels 30 km, to the nearest 10 km, in 2 hours, to the nearest hour. Sam says the greatest possible average speed is 35 ÷ 2.5 = 14 km/h. Explain his mistake. Find the greatest possible speed, to 2 decimal places.



Answer _____ km/h

Bounds in calculations *further practice*

9

Three boxes are 4 kg, 6 kg and 9 kg, each to the nearest kg.
Find the greatest possible total mass.

Answer _____

10

A square has sides of 6 cm, to the nearest cm. Find the least possible perimeter.

Answer _____

11

A field is 80 m by 50 m, each to the nearest 10 m. Find the greatest possible area.

Answer _____

12

A runner covers 400 m, to the nearest 10 m, in 52 s, to the nearest second. Find the greatest possible speed. Give your answer to 2 decimal places.

Answer _____

13

A tile is 0.3 m by 0.2 m, each to 1 decimal place. Find the least possible area.

Answer _____

14

Each crate weighs 20 kg, to the nearest kg. Find the greatest possible mass of 12 crates.

Answer _____

15

A car uses 6 litres of fuel, to the nearest litre, to travel 90 km, to the nearest 10 km. Find the least possible number of km it travels on each litre.
Give your answer to 2 decimal places.

Answer _____

16

A lift's safe load is 100 kg, to the nearest 10 kg. Ben puts in 4 boxes, each 23 kg to the nearest kg. Can he be certain the lift is safe?
Show how you know.

Answer _____