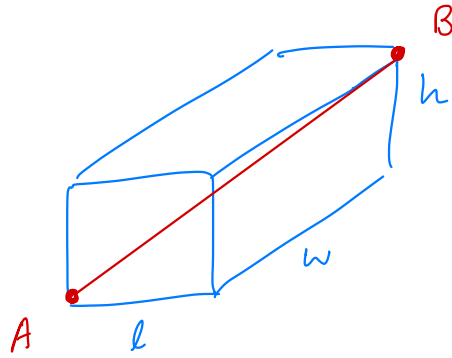


3D Pythagoras (A)



A and B are opposite corners of a cuboid.

$$\text{Length of } AB = \sqrt{l^2 + w^2 + h^2}$$

A cuboid has dimensions 2 cm, 3 cm and 2 cm. Find the length of the diagonal of the cuboid. Give your answer as an exact value.

$$\text{Length} = \sqrt{2^2 + 3^2 + 2^2} = \sqrt{4 + 9 + 4} = \sqrt{17} \text{ cm}$$

A cuboid has dimensions 10 m, 5 m and 9 m. Find the length of the diagonal of the cuboid. Give your answer as an exact value.

$$\text{Length} = \sqrt{10^2 + 5^2 + 9^2} = \sqrt{100 + 25 + 81} = \sqrt{206} \text{ m}$$

A cuboid has dimensions 4 mm, 2 mm and 3 mm. Find the length of the diagonal of the cuboid. Give your answer as an exact value.

$$\text{Length} = \sqrt{4^2 + 2^2 + 3^2} = \sqrt{16 + 4 + 9} = \sqrt{29} \text{ mm}$$