

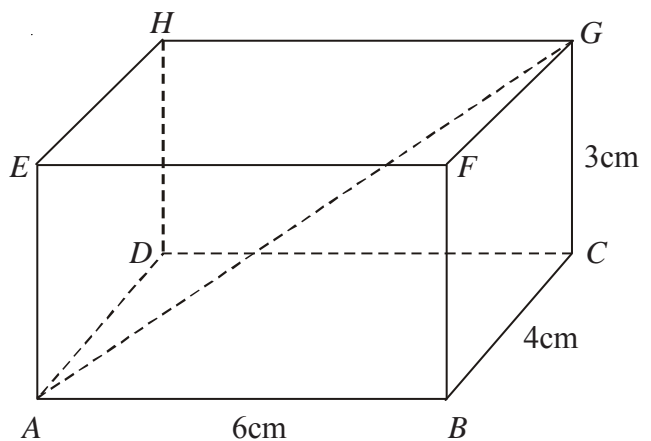
Pythagoras in 3D



- 1) The diagram shows a box in the shape of a cuboid.
 $AB = 6\text{cm}$, $BC = 4\text{cm}$, $CG = 3\text{cm}$

A string runs diagonally across the box from A to G .

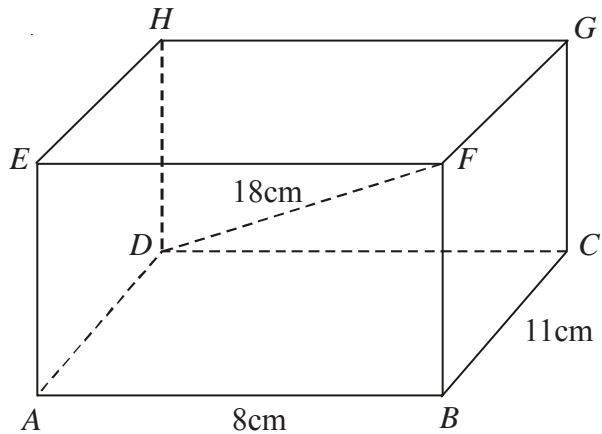
Calculate the length of the string AG .
Give your answer correct to 3 significant figures.



- 2) The diagram shows a box in the shape of a cuboid.
 $AB = 8\text{cm}$, $BC = 11\text{cm}$

A string runs diagonally across the box from D to F and is 18cm long.

Calculate the length AE .
Give your answer correct to 3 significant figures.



- 3) The diagram shows a wedge in the shape of a prism.
Angle BFC is a right angle.

String runs diagonally across the wedge from A to C .

Calculate the length AC .
Give your answer correct to 3 significant figures.

