

3D Pythagoras

Video 259 on www.corbettmaths.com

Examples



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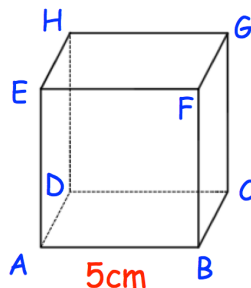


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Workout

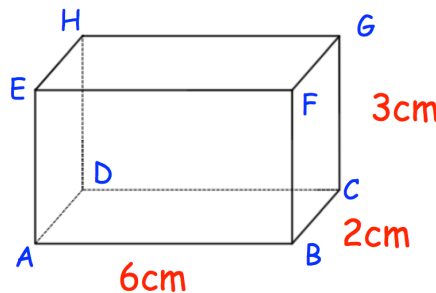
Question 1: ABCDEFGH is a cube with side length 5cm.

- (a) Work out the length of AC
- (b) Work out the length of AG



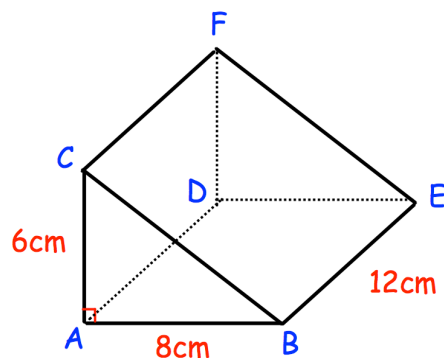
Question 2: ABCDEFGH is a cuboid.
AB = 6cm, BC = 2cm and CG = 3cm.

- (a) Work out the length of BG
- (b) Work out the length of BD
- (c) Work out the length of HC
- (d) Work out the length of AG



Question 3: Shown is a triangular prism.
Triangle ABC is a right angle triangle.

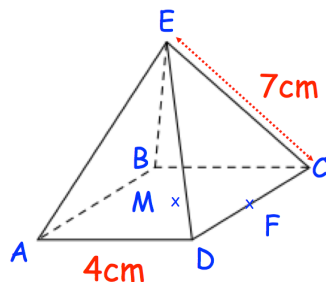
- (a) Work out the length of BC
- (b) Work out the length of CD
- (c) Work out the length of BF



Question 4: Shown is a square based pyramid ABCDE.
F is the midpoint of CD.
M is the point on the base directly below the vertex E.
AD = 4cm and CE = 7cm

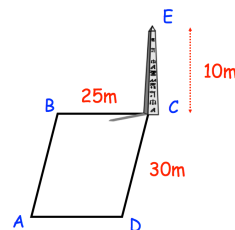
Calculate the length of

- (a) AC
- (b) AM
- (c) EM
- (d) EF



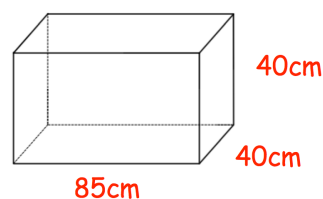
Apply

Question 1: A rectangular field is 30m long and 25m wide. An obelisk is situated in the corner of the field.

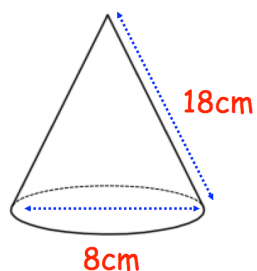


Calculate the length AE.

Question 2: Can a 1m rod fit inside this box?
Explain your answer.



Question 3: Calculate the volume of this cone.

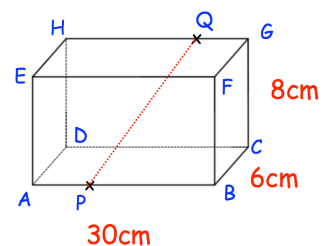


Question 4: ABCDEFGH is a cuboid

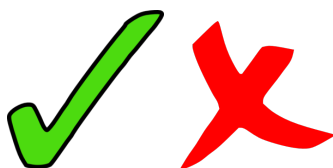
P is a point on AB, such that AP:PB is 1:2

Q is a point on GH, such that GQ:QH is 2:3

Calculate the distance PQ.



Answers



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