



CSEE- Basic Maths

3-D Figures/ Circles

Questions and Answers

Videos with expert tutorials on each topic

CSEE Basic Maths

Revision Topic: 3 – D Figures/ Circles

Section: B

Lesson 13 (Revision Week 5)

Instructions: Complete this worksheet and watch this revision video simultaneously on

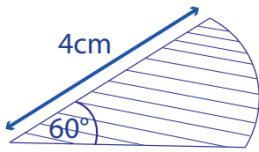
www.mathsmemory.co.uk/International

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces.
Once you have written your answers, check these with the tutorial answers, as explained in the video.

Self Assess yourself (Out of 10) on your **revision planner** after you have completed the revision video .

Question 1

Calculate the perimeter of this sector to 2 decimal places.



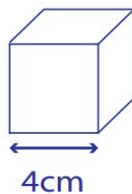
Bronze



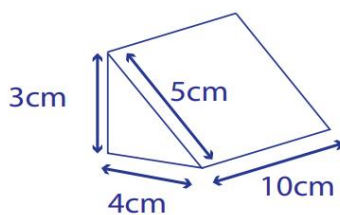
Calculator

Question 2

a) Find the surface area of a cube of side length 4 cm.



b) Find the surface area of this triangular prism.



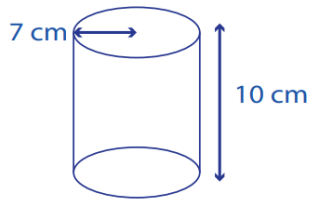
Bronze



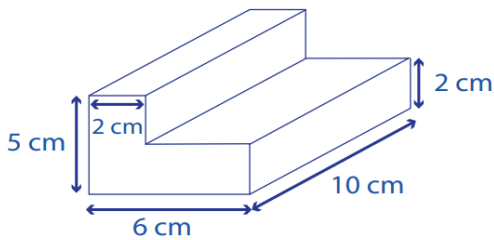
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Question 3

a) Calculate the volume of this cylinder



b) Calculate the volume of this shape.



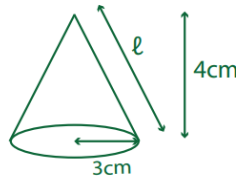
Bronze

Question 4

a) Find

i) Surface Area _____

ii) Volume _____



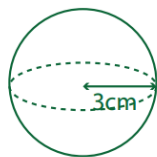
$$\text{Volume of cone} = \frac{1}{3} \pi r^2 h$$

$$\text{Surface Area of cone (curved)} = \pi r \ell$$

b) Find

i) Surface Area _____

ii) Volume _____



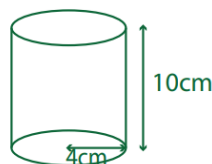
$$\text{Surface Area of sphere} = 4\pi r^2$$

$$\text{Volume of sphere} = \frac{4}{3} \pi r^3$$

c) Find

i) Surface Area _____

ii) Volume _____

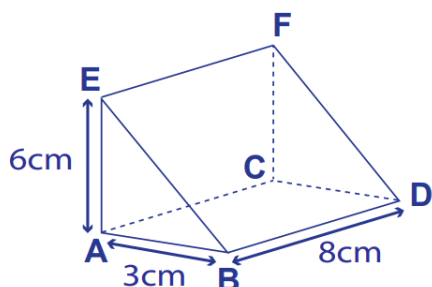


Silver

Calculator

Question 5

The diagram shows a triangular prism..



Find

a) Length CB (3 s.f.)

b) Length BF (3 s.f.)

c) Angle $\widehat{FBC}$ (3 s.f.)



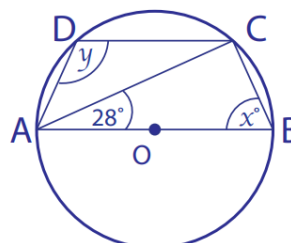
Calculator

Question 6

a) ABCD are points on the circumference, centre O.
AOB is a diameter of a circle. Angle CAB = 28° .

i) $x =$ ____ Reason _____

ii) $y =$ ____ Reason _____

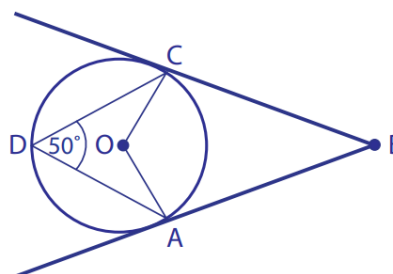


b) ACD are points on the circumference, centre O.
AB and CB are tangents. Angle ADC = 50° .

i) Angle AOC = ____ Reason _____

ii) Angle ABC = ____ Reason _____

iii) Angle CAB = ____ Reason _____

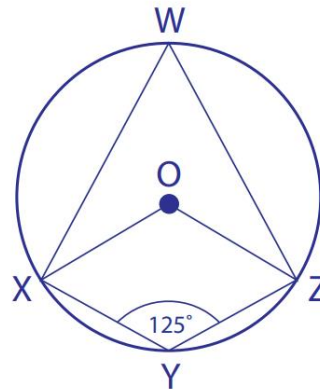


Question 7

WXYZ are points on the circumference, centre O.

Angle XYZ = 125° . XY = YZ

Find angle XOZ. Show your working.



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Question 8

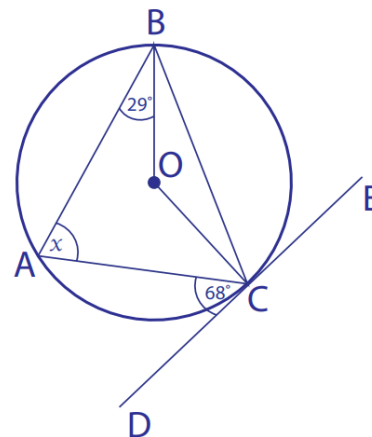
ABC are points on the circumference, centre O.

DCE is a tangent to the circle.

Angle ABO = 29° .

Angle DCA = 68° .

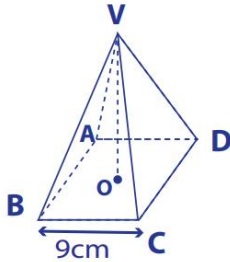
Find angle BAC. Show your working.



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Question 9

The diagram shows square based pyramid ABCD and vertex V.



The angle that face VCD makes with the square base ABCD is 53° .

a) Calculate the height of the pyramid.

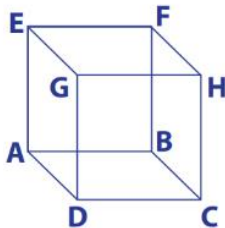
b) Length of VD.



Calculator

Question 10

ABCDEFGH is a cube.



$AB = 7.2\text{cm}$,

N is a point on BC such that $BN:NC = 4:5$

a) Calculate angle FNA (3 s.f.)

b) M is a mid point on FG. Given that $\angle MNA = 71^\circ$ + angle MAN is 73° , calculate length MN (3 s.f.)

Calculator

Calculator