$\qquad$ Date: $\qquad$

## QUIZ - 3D GEOMETRY

1. $(50 \%)$ Given the following Cuboid. $\mathrm{AB}=\mathrm{AG}=9 \mathrm{~cm}, \mathrm{BC}=18 \mathrm{~cm}$ :

a. ( $10 \%$ ) Find the Surface area of the cuboid.
b. (10\%) Find the Volume of the cuboid.
c. $(10 \%)$ Find the length of CG.
d. (10\%) Find the angle between CG and the base of the cuboid.
e. $(20 \%) 2$ spheres whose radius is 3 are put inside the cuboid. Find the percentage of volume that the spheres occupy of the cuboid's volume.
2. $(50 \%)$ Given the following Pyramid. $\mathrm{AB}=\mathrm{BC}=10 \mathrm{~cm}, \mathrm{EF}=8 \mathrm{~cm} . \mathrm{M}$ is the mid point of BC.

a. $(10 \%)$ Find the Surface area of the Pyramid.
b. $(10 \%)$ Find the Volume of the Pyramid.
c. $(10 \%)$ Find the angle between BF and the base of the Pyramid.
d. $(10 \%)$ Find the angle between FM and the base of the Pyramid.
e. $(10 \%)$ A cylinder with an equal volume has radius 2 cm , find its length.
