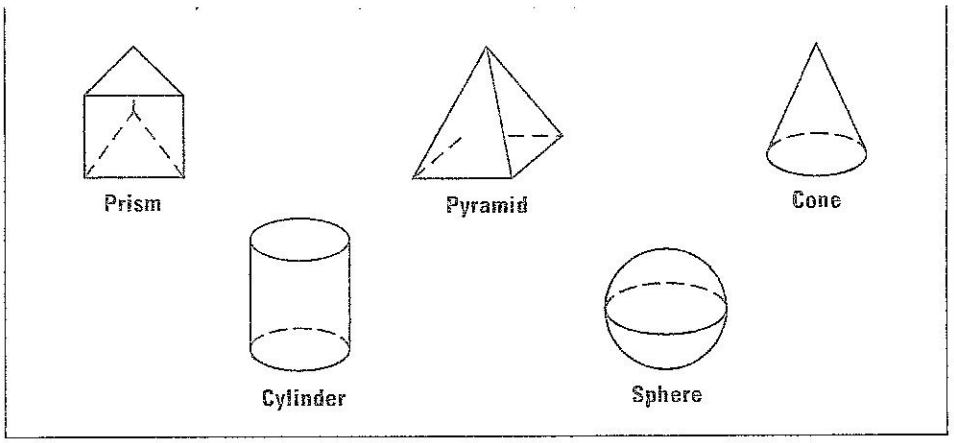
Name _____ Date _____ Period ____



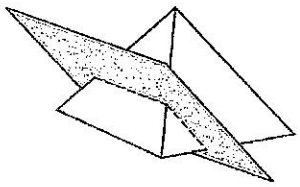
1) Which of the above shapes can be classified as polyhedra? _____

What features make them polyhedra? _____

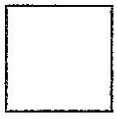
_____

_____

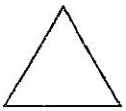
2) A square pyramid is cut along the shaded plane shown below.



Which of the following is the cross-section of this solid?

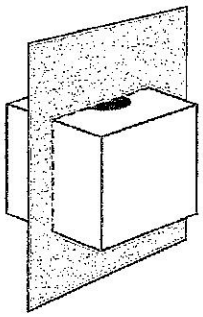
Ⓐ 

Ⓑ 

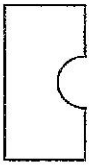
Ⓒ 

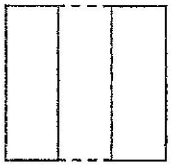
Ⓓ 

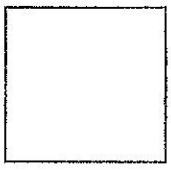
3) A cube with a cylinder cut from its center is cut along the plane shown below.

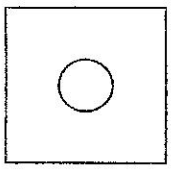


Which of the following is the cross-section of this solid?

Ⓕ 

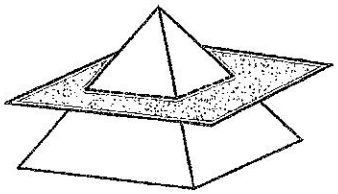
Ⓗ 

Ⓖ 

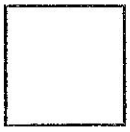
Ⓙ 

Name _____ Date _____ Period ____

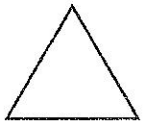
4) A square pyramid is cut along the shaded plane shown below.



Which of the following is the cross-section of this solid?

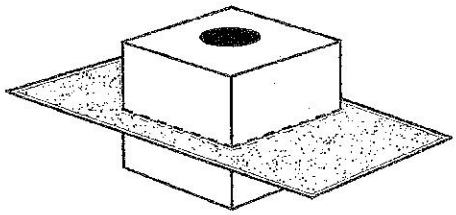
Ⓕ 

Ⓖ 

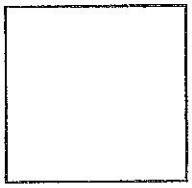
Ⓗ 

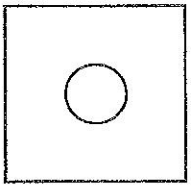
Ⓙ 

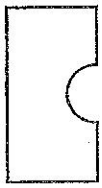
5) A cube with a cylinder cut from its center is cut along the plane shown below.

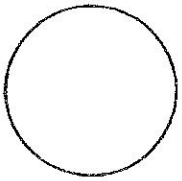


Which of the following is the cross-section of this solid?

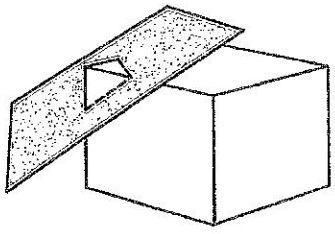
Ⓕ 

Ⓗ 

Ⓖ 

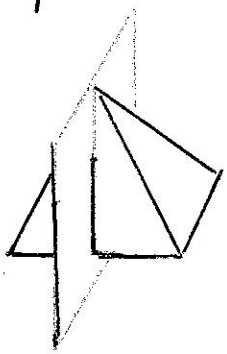
Ⓙ 

6) A rectangular prism is cut along the shaded plane shown below.



Draw a sketch of the cross-section:

7) A pyramid is cut along the shaded plane as shown.



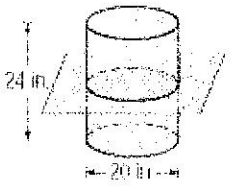
Draw a sketch of the cross-section:

Name _____ P ____ Date _____

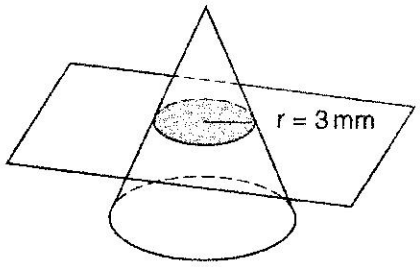
Challenge Problems

PLANAR CROSS-SECTIONS

1) A planar cross-section of a right circular cylinder is shown. What is the area of the cross-section? (Dia = 20 in.)

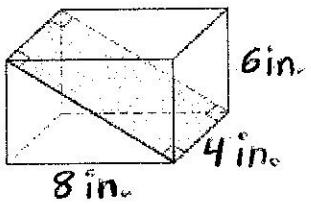


2)



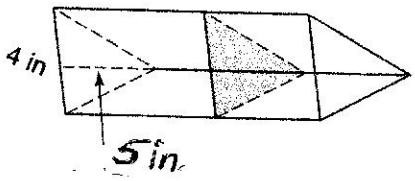
Find the area of the figure formed by the intersection of a plane and a cone if the plane is parallel to the base of the cone.

3)



In the above figure, the shaded region is a planar cross-section of the rectangular solid. What is the area of the cross-section?

4)



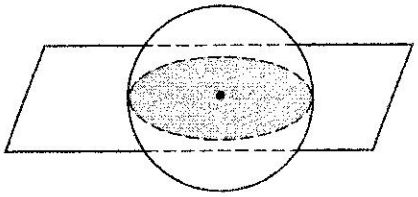
A plane intersects a triangular prism parallel to the base. The prism has a base of 4 inches and a height of 5 inches. What is the area of the figure formed by the intersection??

Name _____ P ____ Date _____

Challenge Problems

PLANAR CROSS-SECTIONS

5) A planar cross-section through the center of a sphere is shown. The radius of the sphere is 20 cm. What is the area of the cross-section?



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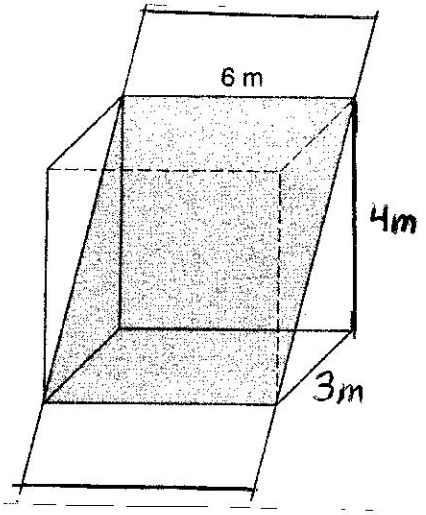
6) Find the area, in square inches, of the plane figure formed by the cross-section of the rectangular prism shown here.



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7) In this figure, the shaded areas show the intersection of two planar cross-sections that divide the large rectangular solid into four identical rectangular prisms. What is the surface are of one of those prisms?