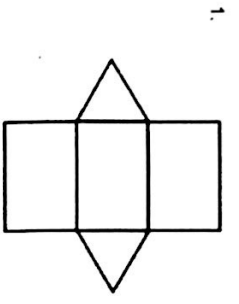
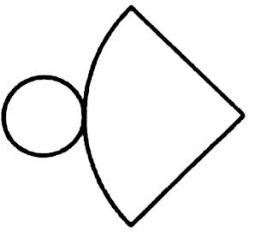


**Shapes and Nets**

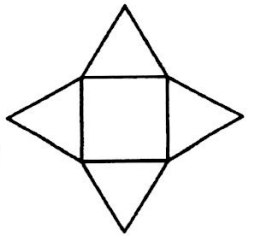
Determine the 3D figure formed by the net.



Triangular Prism



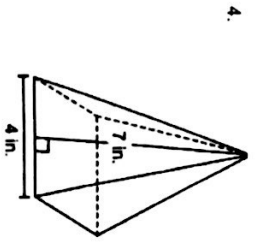
cone



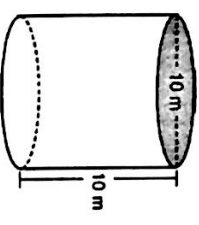
Square Pyramid

**Surface Area and Volume**

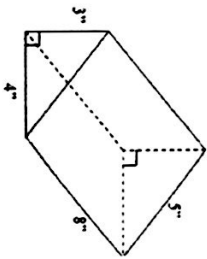
Determine the surface area of each figure.



$72 \text{ in}^2$

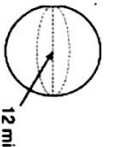


$471 \text{ m}^2$

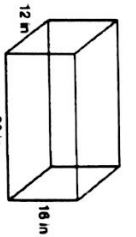


$108 \text{ in}^2$

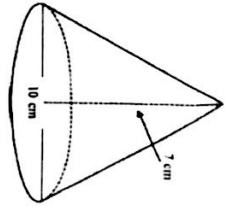
9. Determine the volume of each figure.



$904.32 \text{ mi}^3$

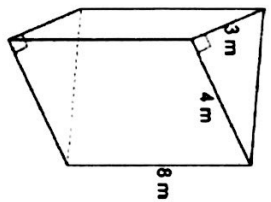


$5760 \text{ in}^3$



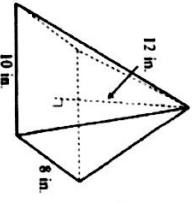
$183.17 \text{ cm}^3$

12



$48 \text{ m}^3$

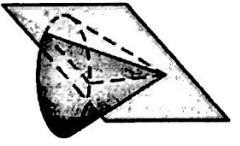
13.



$320 \text{ in}^3$

**Cross-Sections**

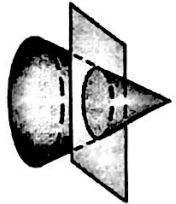
Describe the cross-section formed by the 3D figure and the plane.



triangle



square



circle

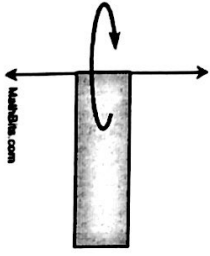
7.   
 $SA = 4\pi r^2$   
 $615.44 \text{ cm}^2$

8.   
 $SA = 78.24 \text{ in}^2$

**Rotations of 2D Figures to Create 3D Figures**

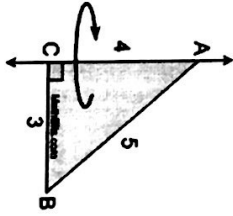
Describe the 3D figure created by rotating the 2D figure around the given line.

17.



cylinder

18.



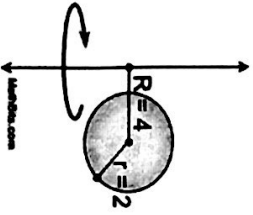
cone

19.



sphere

20.



twos / donut

21.



cylinder on it's side. with cylinder shaped hole.

**Geometric Modeling**

22. Determine the surface area of the cover of a textbook that has a length of 11 inches, a width of 8 inches, and a height of 3 inches.

$290 \text{ in}^2$

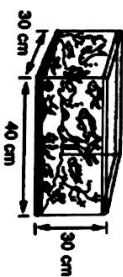
23. Judy has a cylindrical jar with a radius of 6 cm and a height of 10 cm. She puts 20 spherical marbles, each with a radius of 2 cm, into the jar. The rest of the space in the jar is filled with sand. Determine the volume of the sand.

$460.6 \text{ cm}^3$

24. Brittany is going to cover the label on a Pringles can and decorate it for Easter. The can has a diameter of 4.5 in. and a height of 14 in. She only needs to cover the label, not the top or bottom of the can. What is the minimum amount of paper needed?

$197.82 \text{ in}^2$

25. If one guppy requires 5 liters of water to live happily, what is the maximum number of guppies that should be kept in this aquarium? (1000  $\text{cm}^3 = 1$  liter)



7 guppies

26. Pedro created a cone-shaped cup out of paper. If his cup has a radius of 3 inches and a slant height of 5 inches, how much paper did he use?

$75.36 \text{ in}^2$

27. A section of concrete pipe 30 m long has an inside diameter of 1.2 m and an outside diameter of 1.8 m. What is the volume of concrete in this section of pipe?

$4.24 \text{ m}^3$

