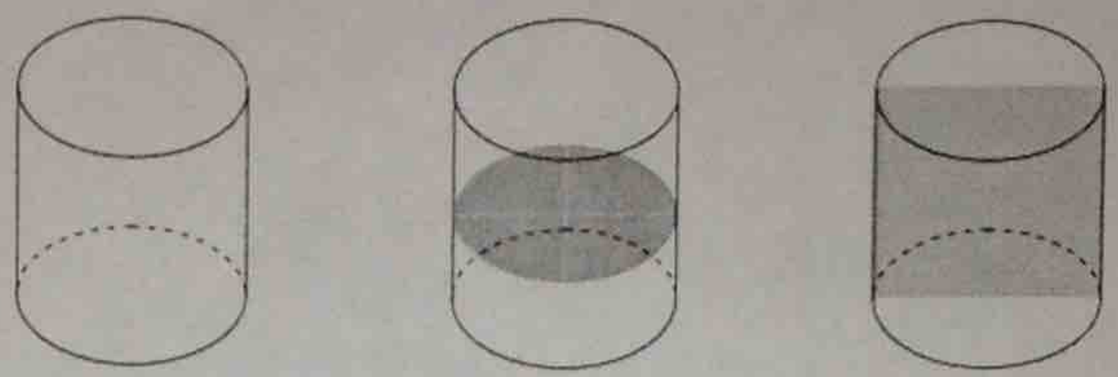
Math 3

# 6.7 Cross Sections and Rotations

Unit 6

*SWBAT identify the geometric cross section of a 3-D figure and determine the rotational image of a 2-D figure.*

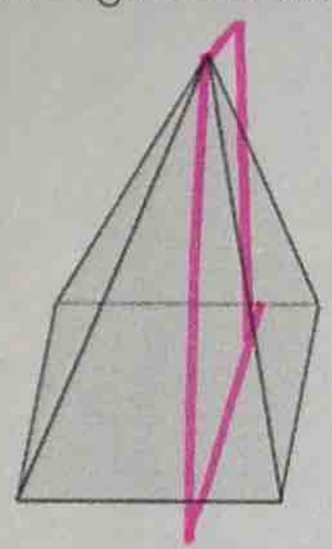
**Cross Section:** A surface or shape that would be exposed by making a straight cut through something, especially at right angles to an axis.



Initial Diagram | Cross Section Parallel to the Bases | Cross Section Perpendicular to the Bases

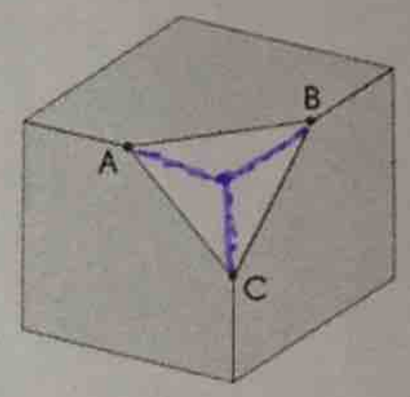
**Example 1:** What is the vertical cross-section going through the center of the figure shown?

a) Triangle
b) Circle
c) Square
d) Trapezoid

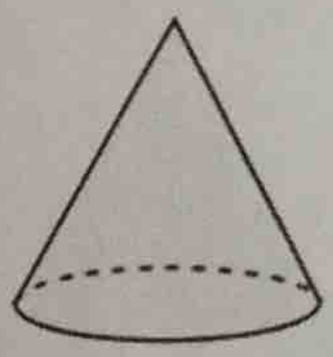


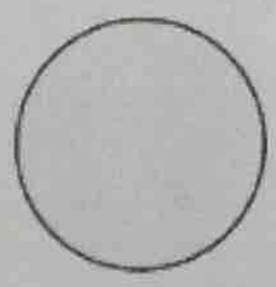
**Example 2:** Daniel cut the corner off a cube as shown in the diagram below. Points A, B, and C are the midpoints of the edges of the cube. What type of three-dimensional figure has been cut off?

a) Cone
b) Cube
c) Triangular prism
d) Triangular pyramid

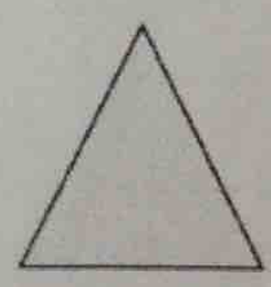


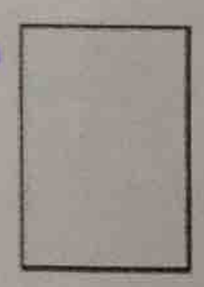

**Example 3:** A right circular cone is represented by the drawing below. Which figure could not be a cross section of a right circular cone?



a) 

b) 

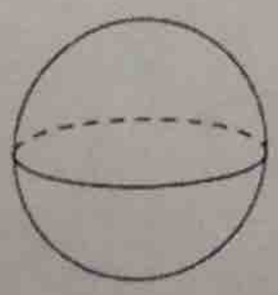
c) 

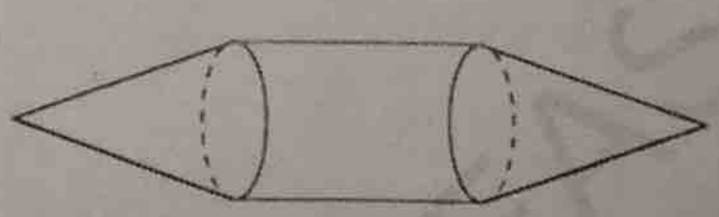
d) 

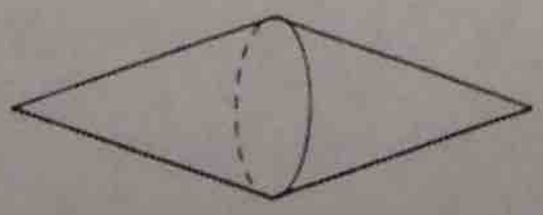
**Example 4:** What 3-dimensional figure do you get when you rotate a rectangle 360°?

Cylinder

**Example 5:** Kathleen rotated an isosceles trapezoid 360° around its longest base. Which choice could be the resulting sold?

A 

C 

B 

D