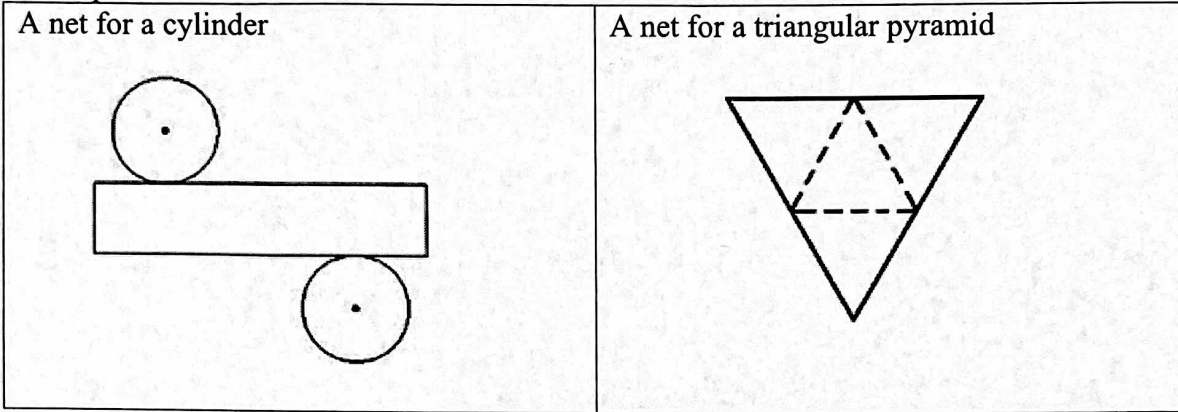


**Geometry**

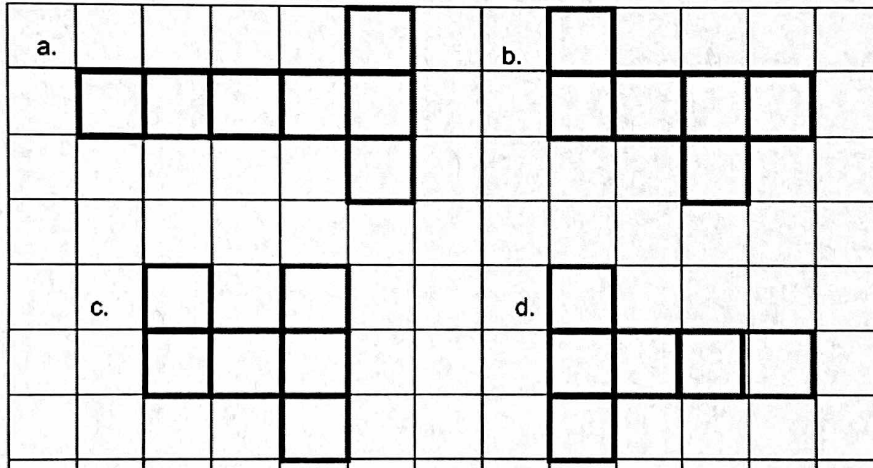
**Nets, Sections & Solids** (adapted from Michael Serra's Discovering Geometry)

A **net** is a two-dimensional (flat) representation of a three-dimensional solid/surface.

Examples of nets:

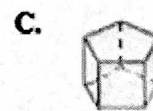
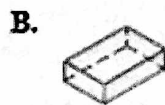
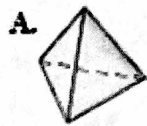
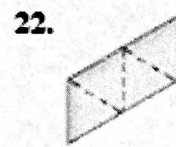
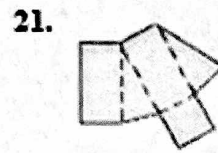
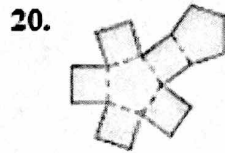
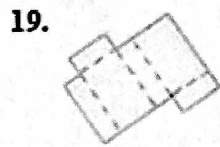


Which of the following is a net for a cube?



p. 78

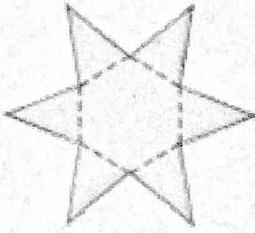
For Exercises 19–22, match the net with its geometric solid.



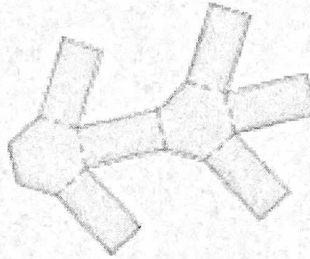
p. 83

For Exercises 13–15, sketch the three-dimensional figure formed by folding each net into a solid. Name the solid.

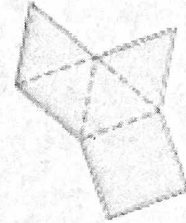
13.



14.

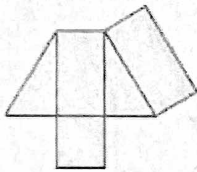


15.



p. 98

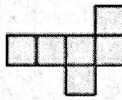
26. Sketch the three-dimensional figure formed by folding the net below into a solid. (h)



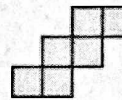
p. 511

41. For each net, decide whether it folds to make a box. If it does, copy the net and mark each pair of opposite faces with the same symbol.

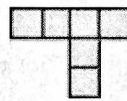
a.



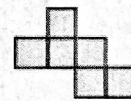
b.



c.

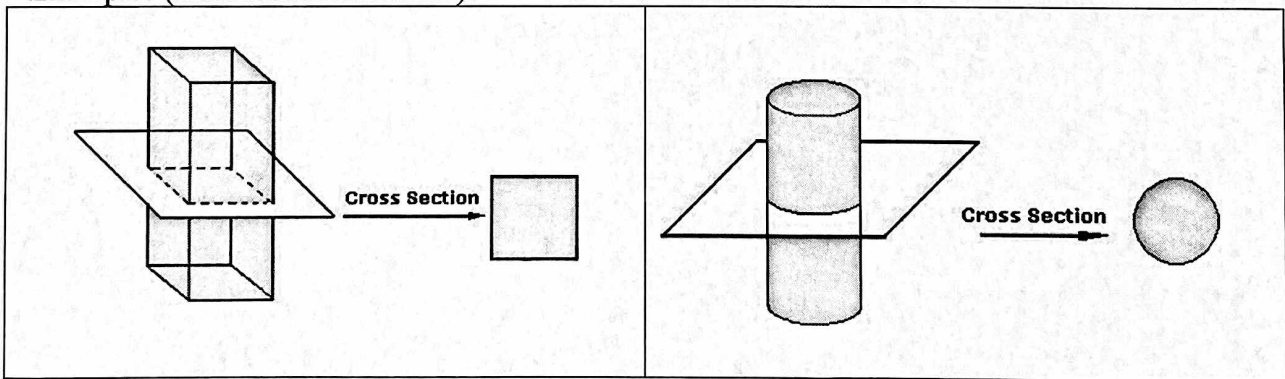


d.



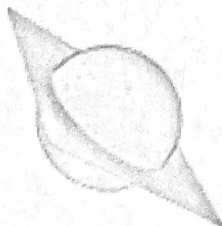
A **section** is the resulting two-dimensional (flat) figure formed when a plane intersects a solid.

Examples (from icoachmath.com):

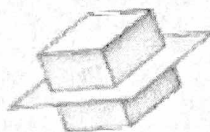


p. 84 & p. 91 Sketch the section shown when each solid is sliced by a plane.

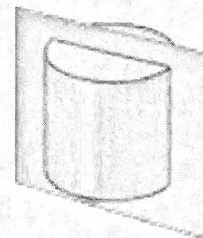
20. (h)



21.

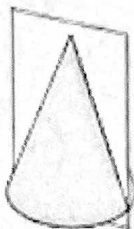


55.

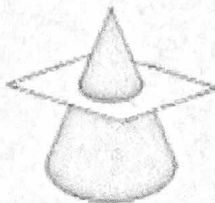


p. 98 & p. 284 Sketch the section shown when each solid is sliced by a plane.

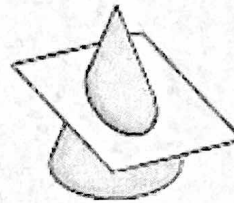
23.



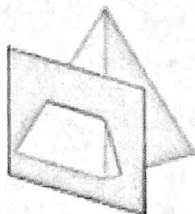
24.



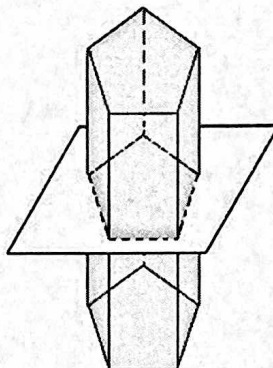
25.



20.

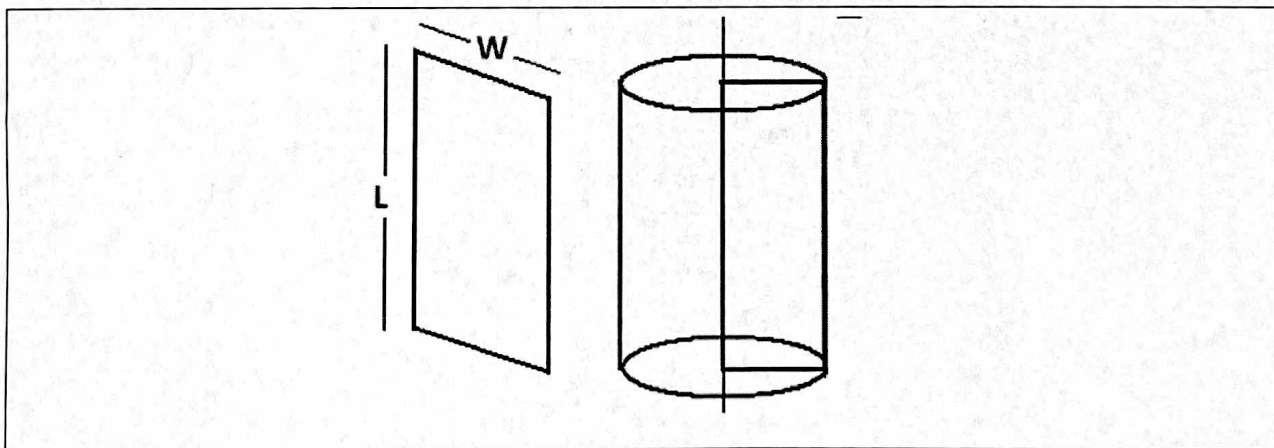


Extra:



A **solid of revolution** is a three dimensional solid formed by spinning a two dimensional figure around a line attached or unattached to the figure.

Example (rotating a rectangle along one of its sides results in a cylinder):



p. 84, 91 – Sketch the solid of revolution formed by the two-dimensional figure.

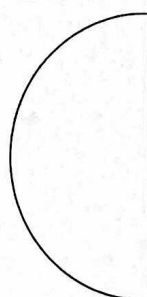
19.



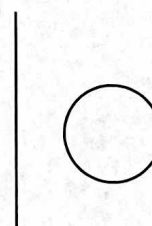
54.



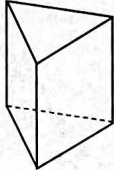
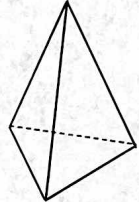

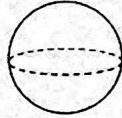
Extra:



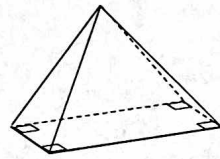
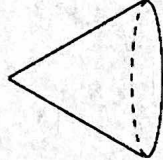
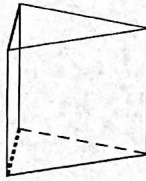
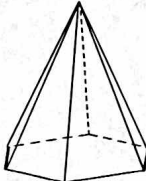
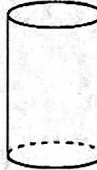
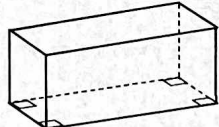
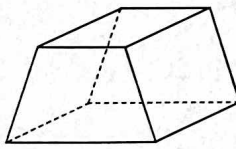
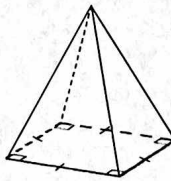
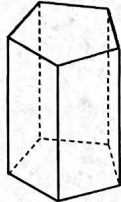
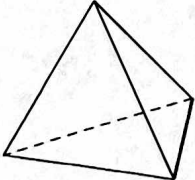
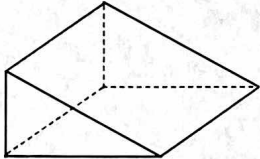
Extra:



# CLASSIFYING 3D FIGURES

<p><b>Prism</b></p> <p>A solid with two bases that are congruent and parallel.</p> <p>This figure is a triangular prism because the bases are triangles.</p>		<p><b>Pyramid</b></p> <p>A solid with one base and faces that meet at a point.</p> <p>This figure is a triangular pyramid because the base is a triangle.</p>	
<p><b>Cylinder</b></p> <p>A prism with circular bases.</p>		<p><b>Cone</b></p> <p>A pyramid with a circular base.</p>	<p><b>Sphere</b></p> <p>A solid in which each point is equidistant from a center point.</p> 

**Directions:** Classify each solid. Highlight the base(s)!

<p>1.</p>  <p>ex: rectangular pyramid</p>	<p>2.</p> 	<p>3.</p> 
<p>4.</p> 	<p>5.</p> 	<p>6.</p> 
<p>7.</p> 	<p>8.</p> 	<p>9.</p> 
<p>10.</p> 	<p>11.</p> 	<p>12.</p> 