

2.8

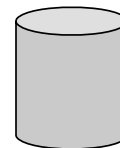
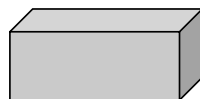
Space Geometry

Objectives

1. Introduce some basic solids.
2. Be able to sketch the basic solids.

space geometry

- **3-D figures**
- **objects not restricted to flat surfaces**

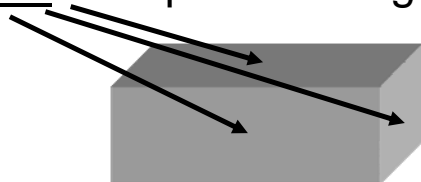


When drawing space objects:

1. **solid lines:** lines you see
2. **dashed lines:** lines that would not be visible if object were solid

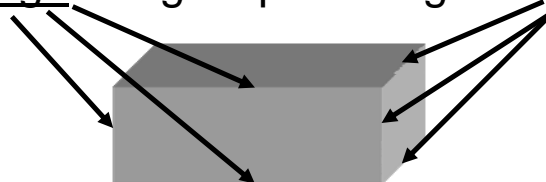
RECTANGULAR SOLID

face - flat portion of figure



RECTANGULAR SOLID

edge - angled part of figure

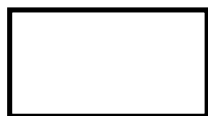


Rectangular Solid with Face Closest to Viewer

1. Draw face.

Rectangular Solid with Face Closest to Viewer

1. Draw front face.

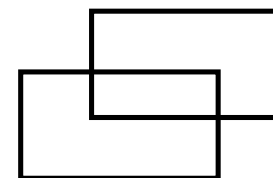


Rectangular Solid with Face Closest to Viewer

2. Draw rear face.

Rectangular Solid with Face Closest to Viewer

2. Draw rear face.

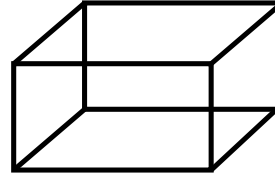


Rectangular Solid with Face Closest to Viewer

3. Connect appropriate vertices.

Rectangular Solid with Face Closest to Viewer

3. Connect appropriate vertices.

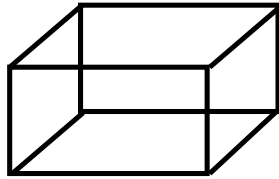


Rectangular Solid with Face Closest to Viewer

4. Use dashed lines to represent lines not visible.

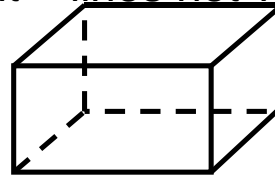
Rectangular Solid with Face Closest to Viewer

4. Use dashed lines to represent lines not visible.



Rectangular Solid with Face Closest to Viewer

4. Use dashed lines to represent lines not visible.

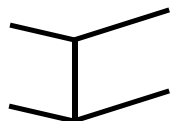


Rectangular Solid with Edge Closest to Viewer

1. Draw edge closest to viewer.

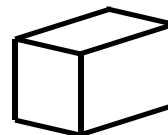
Rectangular Solid with Edge Closest to Viewer

1. Draw edge closest to viewer.



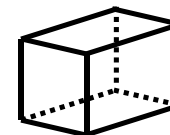
Rectangular Solid with Edge Closest to Viewer

2. Draw the rest of the edges.



Rectangular Solid with Edge Closest to Viewer

3. Draw rest of lines (hidden parts) with dashed lines.



CYLINDER

1. Draw visible edge (top or bottom).

CYLINDER

1. Draw visible edge (top or bottom)



CYLINDER

2. Draw hidden edge.



CONE

1. Draw visible edge and top of cone.



CONE

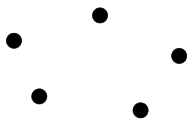
2. Connect top & bottom; draw hidden area.



PYRAMID

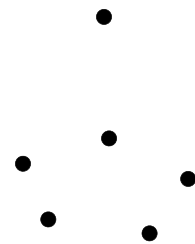
1. Draw base vertex points.
Base is the part of figure that is on bottom.

PYRAMID



PYRAMID

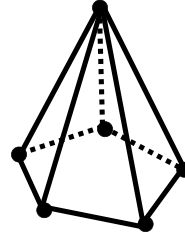
2. Draw top point of pyramid.



PYRAMID

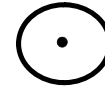
PYRAMID

3. Draw visible edges and hidden edges.



SPHERE

1. Draw perimeter.



SPHERE

2. Draw front and rear edges.



HEMISPHERE

1. Draw front/rear edges.

