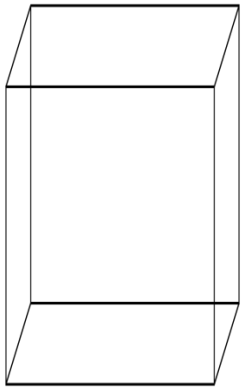
Three-Dimensional 3D Figures

Solid: A three-dimensional figure that encloses a _____.



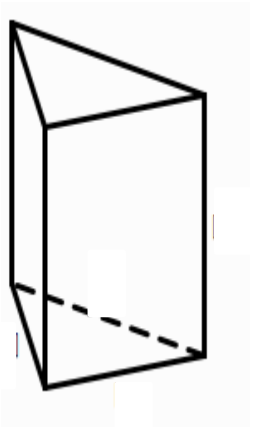
Ex. A box of cereal is a solid.

Polyhedron: A solid whose _____ are all polygons.

Ex. A pyramid is a polyhedron because all of its faces are polygons.

Face: A _____ surface of a polyhedron.

Ex. The front of a house could be a face of a polyhedron.



Edge: A _____ segment where two _____ intersect.

Ex. The perimeter of each face makes the edges to any polyhedron.

Vertex: A _____ where three or more _____ intersect.

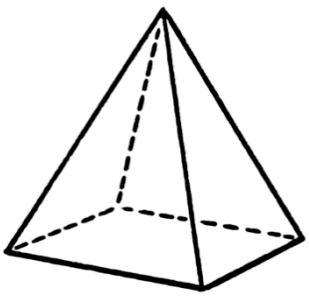
Ex. The sharp corners of any box are examples of the vertex.

Prism: A polyhedron that has two _____, identical bases. The _____ faces are always parallelograms.

Draw a picture

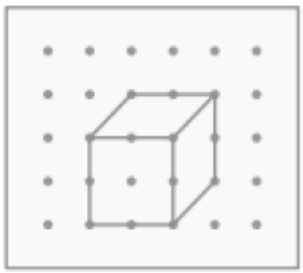
Pyramid: A polyhedron that has _____ base. The lateral faces are always _____.

Draw a picture



Together Examples: Draw the front, side, and top view of each stack of cubes. Then find the number of cubes in the stack.

Tip: Dot paper can help you draw three-dimensional figures, or solids.

1. 

Front-

Side-

Top-

# of Cubes-

2. 

Front-

Side-

Top-

# of Cubes-

Pause and Try: Draw the front, side, and top view of each stack of cubes. Then find the number of cubes in the stack.

Tip: Dot paper can help you draw three-dimensional figures, or solids.

3. 

Front-

Side-

Top-

# of Cubes-

4. 

Front-

Side-

Top-

# of Cubes-

Surface Area SA of Prisms

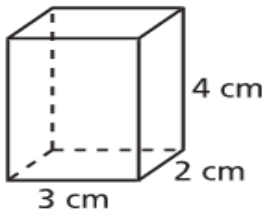
Surface Area: The _____ of a solid is the _____of all the areas of all of its _____.

Net: A two-dimensional representation of a _____. You can use a net to find the _____ of a solid.

Find the area of all of the faces and add them all together.

Together Examples: Draw a net of each prism, and then find the area of each prism.

1.



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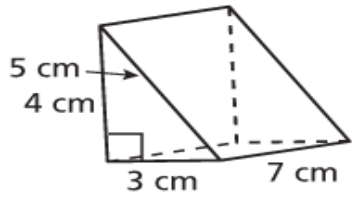
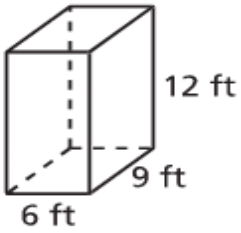


Pause and Try: Draw a net of each prism, and then find the area of each prism.

3.



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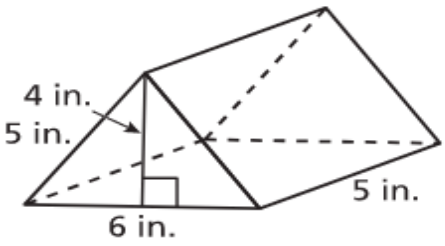
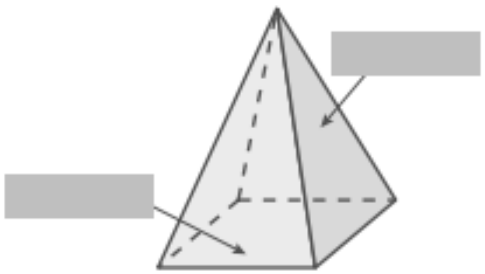


Surface Area SA of Pyramids

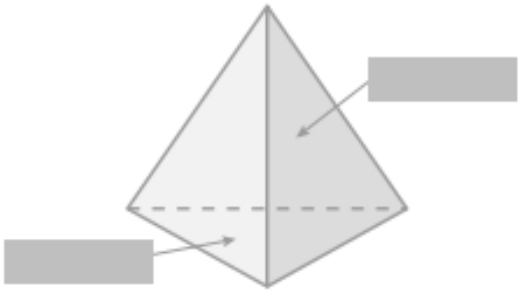
Label one of the faces as a BASE and the other as a LATERAL FACE. Use the shape of the base to identify the pyramid.

a.



_____ Pyramid

b.

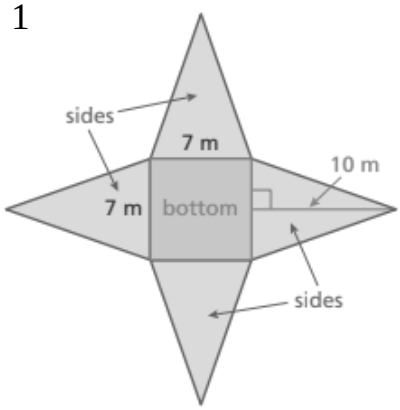


_____ Pyramid

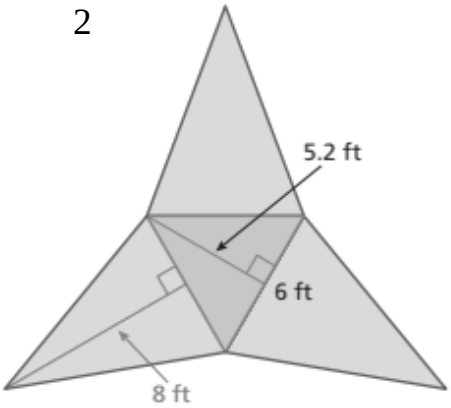
Hint: ALL the _____ of a pyramid are _____!

Together: Given the net, what is the surface area?

1

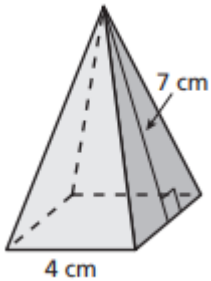


2



Pause and Try: Draw the net and find the SA.

1



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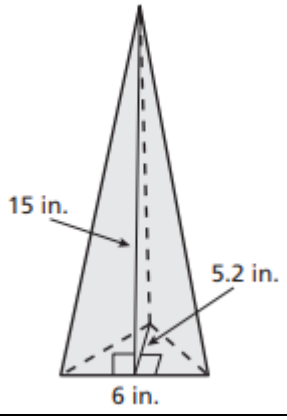


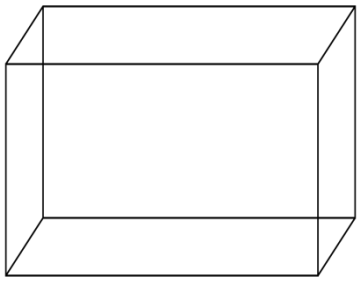
Volume of Rectangular Prisms

Volume:

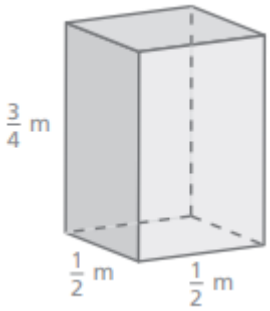
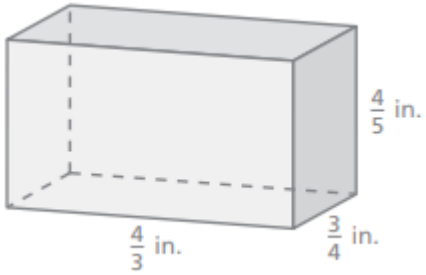
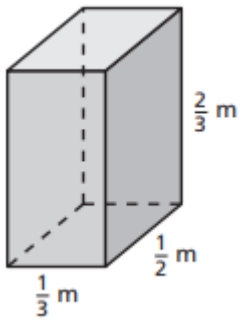
Formula for Volume

Area of Base x Height

$V = \ell \ w \ h$



Hint: Volume is always _____. Example:

Together:	
1 	2 
Pause and Try:	
1 	2