Surface Area

Lesson 2: Nets

Outcomes	1	2	3	4
Shape and Space				
Draw and construct nets, interpret views, and determine the surface area of 3-D objects. (SS2, SS3, SS5)	Determine the area of rectangles, triangles and circles Identify the congruent bases and the lateral faces of a given prism Construct and describe a variety of right rectangular and triangular prisms from a net	Use a given net to construct and determine the surface area of simple 3-D objects Construct a 3-D object from a given net Build a 3-D object using concrete materials using the top, front and side views Draw the top, front and side view from a concrete 3-D object	Use a net or views to determine the surface area of a variety of 3-D objects Explain that the surface area of a 3-D object is the sum of the area of its faces Draw multiple nets for right prisms and cylinders and verify by constructing Draw a 3-D object on isometric dot paper given the top, front and side views Draw the top, front and side view from a drawing of a 3-D object	Flexibly apply nets, views, and formulae to determine surface area Predict 3-D objects that can be created from a given net and verify the prediction Predict and draw the top, front and side views that will result from a described rotation

5.2 - Nets of 3D Objects

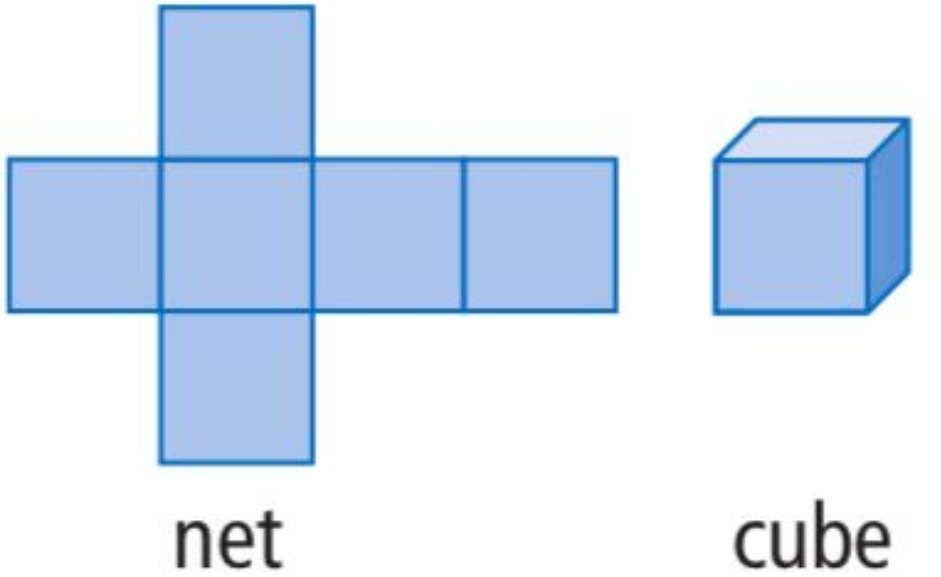
After this lesson you will be able to:

- Determine the correct nets for 3D objects
- Build 3D objects from nets
- Draw nets for 3D Objects



5.2 - Nets of 3D Objects

Net - Two-dimensional shape that, when folded, encloses a 3D object.



5.2 - Nets of 3D Objects

Draw a net for a 3D Object

Imagine the lid is off this delicious snack container. What would the net for this (open) Pringles can look like?



5.2 - Nets of 3D Objects

Draw a net for a 3D Object



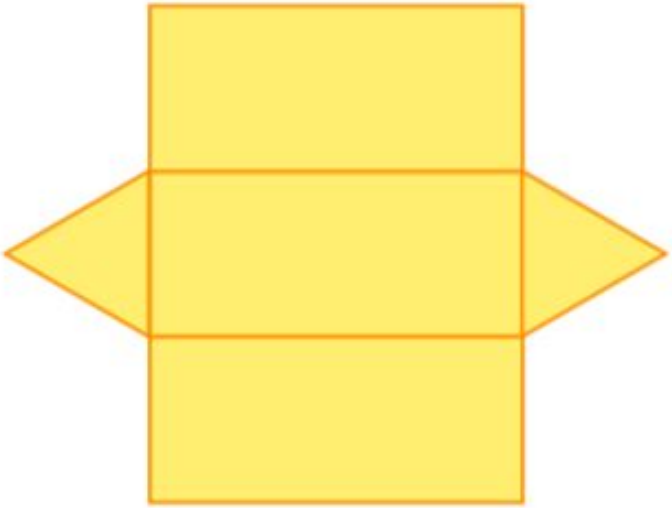


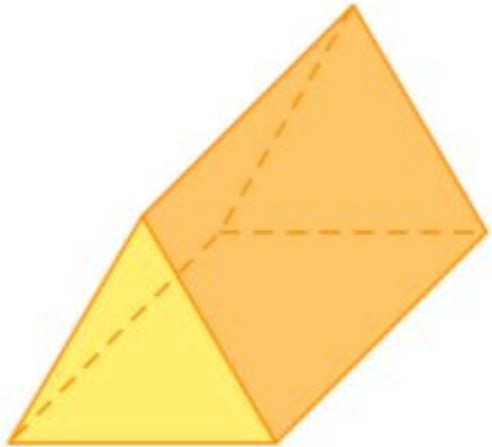
The net has one circle and a rectangle. When the rectangle is curved around the circle, the net will form a cylinder with an open top. **The width of the rectangle is equal to the circumference of the circle.**

5.2 - Nets of 3D Objects

Draw a 3D object from a net

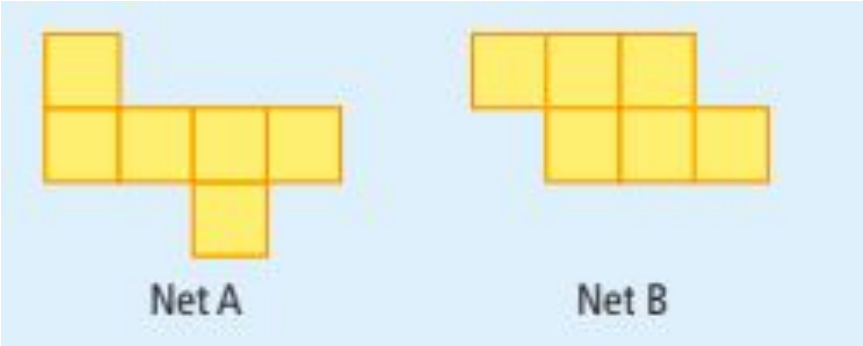
What 3D shape would this net form?





5.2 - Nets of 3D Objects

Both of these nets have six faces, like a cube. Will both nets form a cube? Justify your answer.



5.2 - Nets of 3D Objects

- A net is a two-dimensional shape that, when folded, encloses a three-dimensional object.
- The same 3-D object can be created by folding different nets.
- You can draw a net for an object by visualizing what it would look like if you cut along the edges and flattened it out.
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Practice

Math Practice

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Q. 3, 4, 6, 7, 10 and 13

