Nets and Drawings for Visualizing Geometry

UNIT 1 LESSON 1

Nets and Drawings for Visualizing Geometry

Students will be able to:

understand nets of 3-dimensional shapes and identify the shapes given their nets.
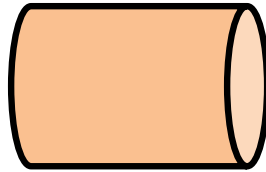
Key Vocabulary:

- 3-dimensional shapes
- Nets of 3-dimensional shapes
- Nets of Cube, Cone, Cylinder, Prism
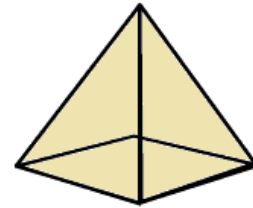
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A **three-dimensional shape (3-D)** is a geometrical shape that has a certain length, width (in some cases it is referred as the thickness) and a certain height. Some common 3-D shapes are:
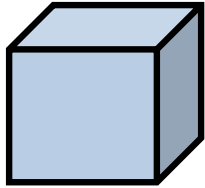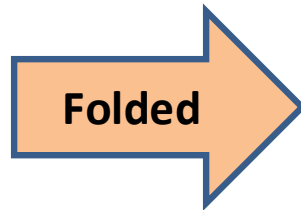
Cube

Cylinder

Square Pyramid

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A **net of a 3-D shape** is a 2-dimensional shape which when folded, can convert into the 3-D shape. The net shows all the surfaces of a 3-D shape in one view.
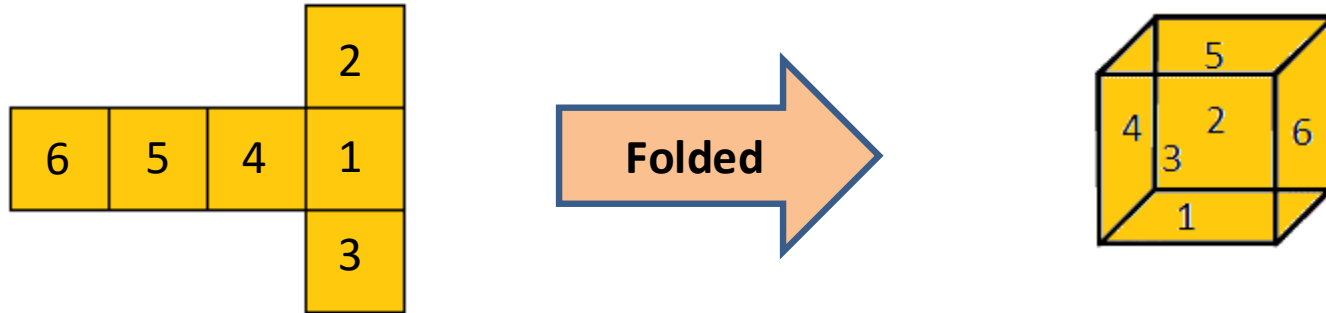
Net of a 3-D shape → **Folded** → **3-D shape**

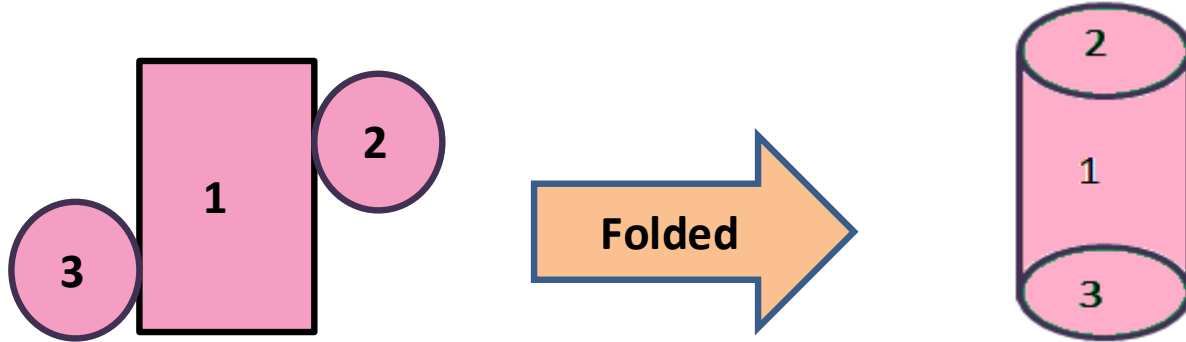# Nets and Drawings for Visualizing Geometry

A **net of a cube** is made of six squares which are representing the six square faces of a cube.

If the sequence of numbers is followed to fold the net, the resulting 3-D shape looks like the cube shown.

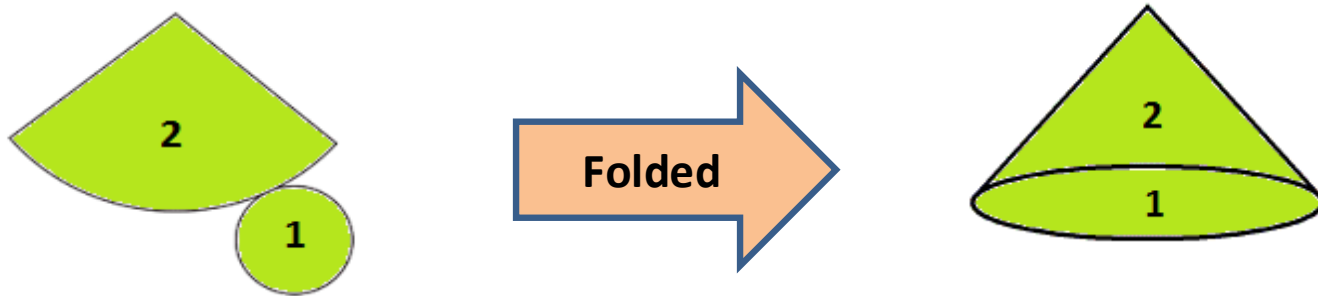# Nets and Drawings for Visualizing Geometry

A **net of a cylinder** is made of two circular (or elliptical) bases and a rectangular side.

If the sequence of numbers is followed to fold the net, the resulting 3-D shape looks like the cylinder shown.
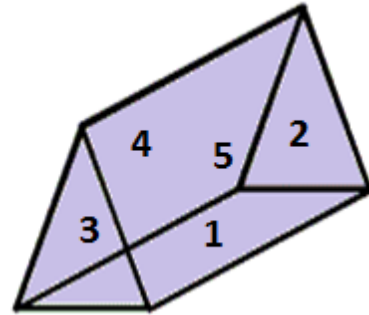
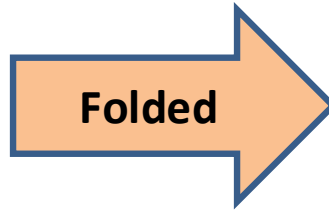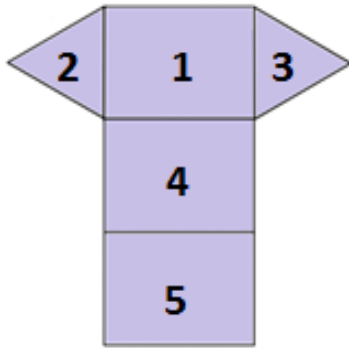# Nets and Drawings for Visualizing Geometry

A **net of a cone** is made of one circular (or elliptical) base and a two lines joined at a common point which extend from the base.


If the sequence of numbers is followed to fold the net, the resulting 3-D shape looks like the cone shown.

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A **net of a prism** is made of 3 rectangular faces and a two triangular faces that make the sides of the prism.
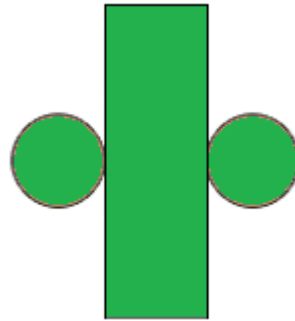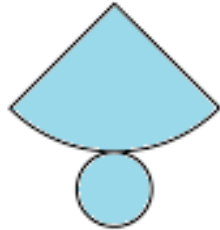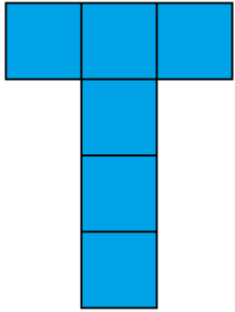

If the sequence of numbers is followed to fold the net, the resulting 3-D shape looks like the prism shown.
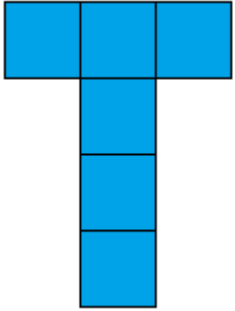
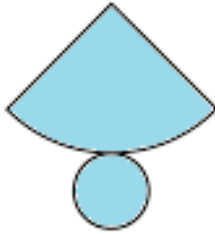# Nets and Drawings for Visualizing Geometry

Problem 1:

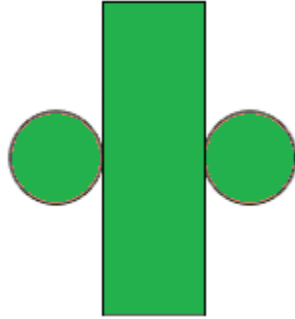Identify the name of the 3-D shape for each net given below:
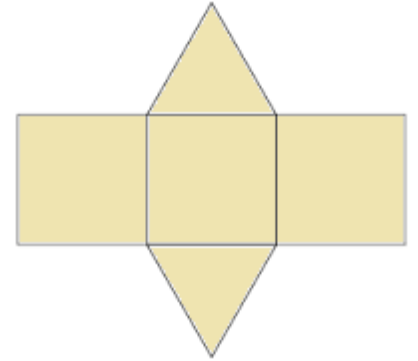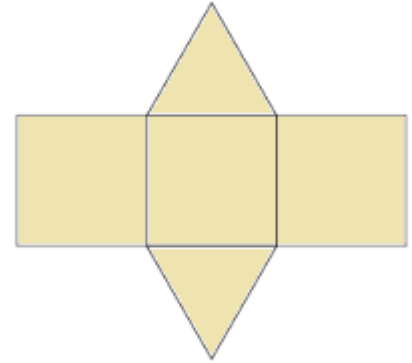
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CUBE

CONE

CYLINDER

PRISM