Draw a net for the solid.

1.

2.
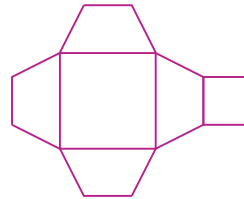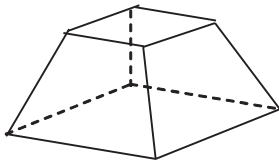
3.   Draw the solid represented by the net. Then, classify the solid.
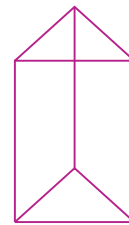
Triangular prism

Draw the top, front, right, and left views.

4.

Top:

Right:

Front:

Left:

5.

Top:

Right:

Front:

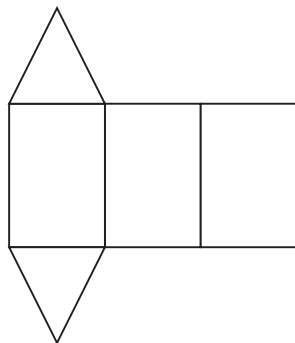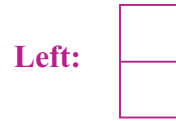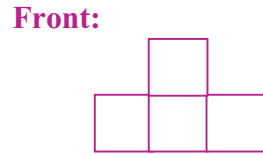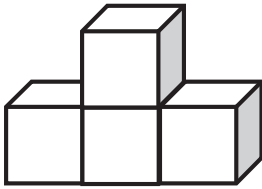**Left:**

6.

Top:

Right:

Front:

Left:

Module 10   Lesson 5
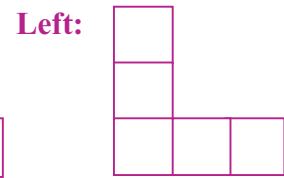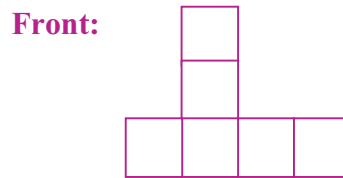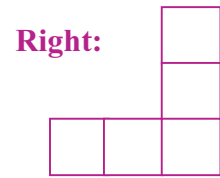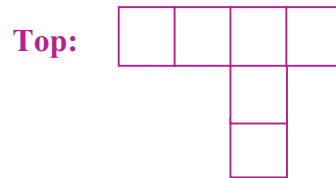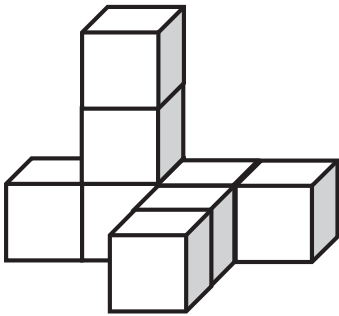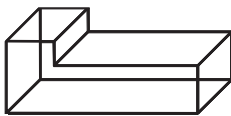
Independent Practice

Module 10   Coordinate Geometry and Spatial Visualization
Lesson 5   Building Models

7.   Draw the top, front, and right views.

Top:

Front: **Right:**

8.   Draw the solid that has these views.

Journal

1. In your own words, explain what a net is. Then, explain how a triangular prism can have more than one correct net.

2. Tell why the following is not a net of a cube. Then, tell how it can be changed to make it a net of a cube.

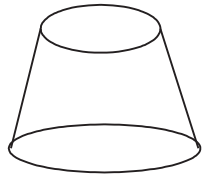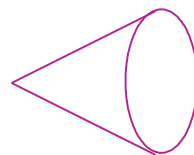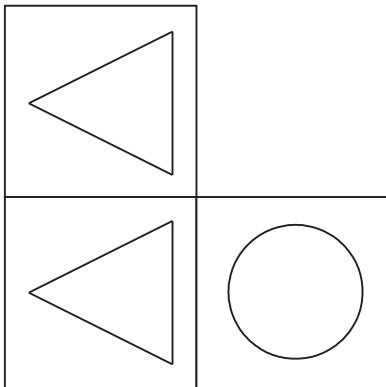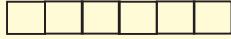3. Cindy drew the top view of the figure below like this.
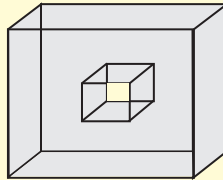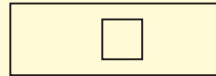
Explain why she is incorrect. Then, draw the correct top, front, right, and left views. Explain how you determined what each view should be.

Cumulative Review

Plot and label each point.

1. $A(-4, -1)$
2. $B(0, 2)$
3. $C(3, -4.5)$
4. $D(-1, 2)$
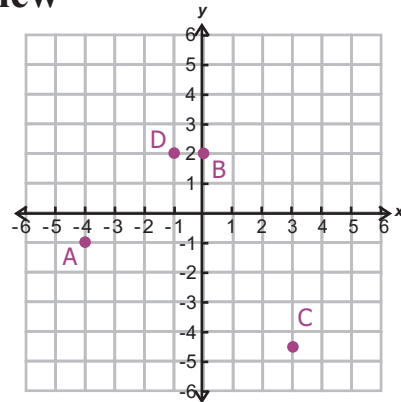
5. The vertices of a triangle are (2, 4), (2, -1), and (4, y). What must be the value of y to make the triangle a right triangle?

$y = -1$

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6. Find the slope of the line. Then, find the slope of any line perpendicular to it.

$$\frac{5}{4}; -\frac{4}{5}$$

7. Sketch a cone.

8. Sketch a rectangular pyramid.

Possible Journal Answers

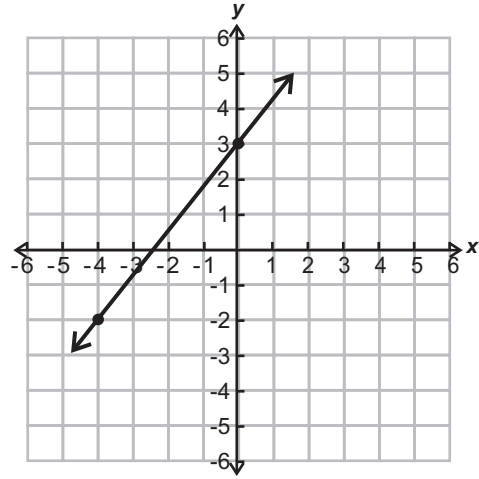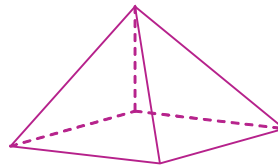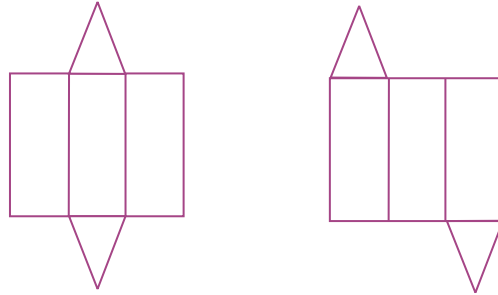1. A net is a two-dimensional pattern of a solid that forms the solid when it is folded. A triangular prism can have either of the nets below. Both have three rectangular lateral faces, but the placement of the bases is different. However, once the bases are folded over, both prisms will look the same.

2. Six squares in a row is not a net of a cube because once three edges are folded to form the four lateral sides, the last two squares cannot be folded in such a way as to enclose the top and bottom of the figure. To make this a net of a cube, two squares can be moved to be on either side of the lateral sides, as shown below.
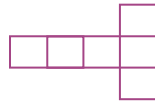
3. Cindy's top view is incorrect because the hole in the figure cannot be seen from the top. It can only be seen from the front (or back). To make the top view, I imagine looking straight down on the figure from directly above it. For this figure, the top view would be a rectangle.

   To make the front view, I look straight at it from the front and draw what I see, regardless of depth. The hole in the middle would be seen.
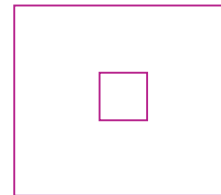
   To make a side view, I imagine looking at the figure directly from that side. Again, depth is irrelevant. For this figure, the right and left side views are congruent rectangles. The hole in the middle would not be seen.