

1-1

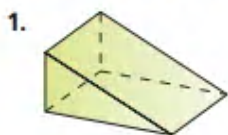
Practice

Form K

Nets and Drawings for Visualizing Geometry

Review:

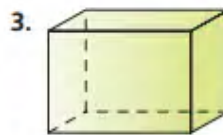
Identify each figure as *two-dimensional* or *three-dimensional*.



3-D



2-D

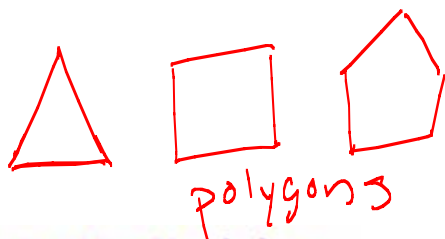


3-D

Vocabulary:

Polygon:

A two dimensional figure with 3 or more sides where each side meets exactly two other sides at their endpoints

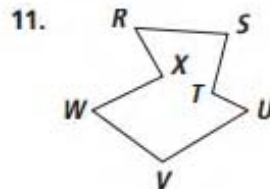
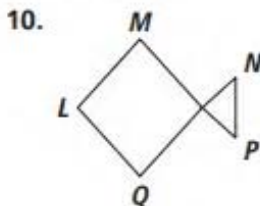
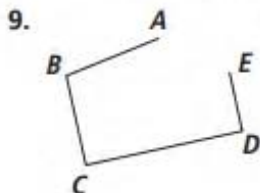


● Use Your Vocabulary

Underline the correct word(s) to complete each sentence.

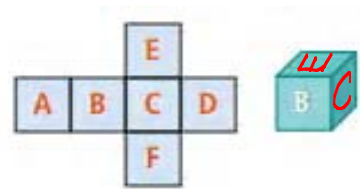
4. A polygon is formed by two / three or more straight sides.
5. A circle is / is not a polygon.
6. A triangle / rectangle is a polygon with three sides.
7. The sides of a polygon are curved / straight
8. Two / Three sides of polygon meet at the same point.

Cross out the figure(s) that are NOT polygons.



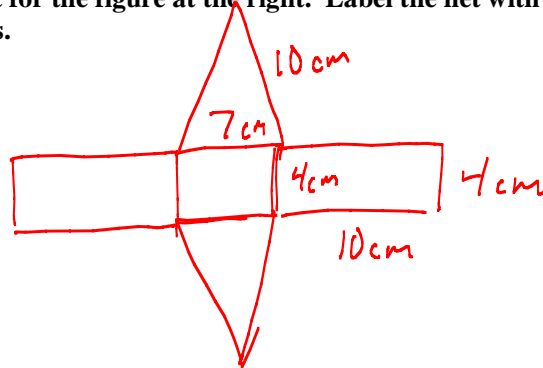
Example 1: Identifying a Solid from a Net

The net at the right folds into the cube shown. Which letters will be on the top and the right side of the cube?



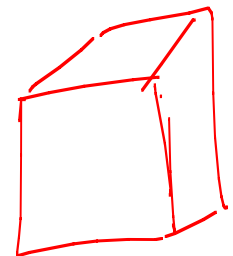
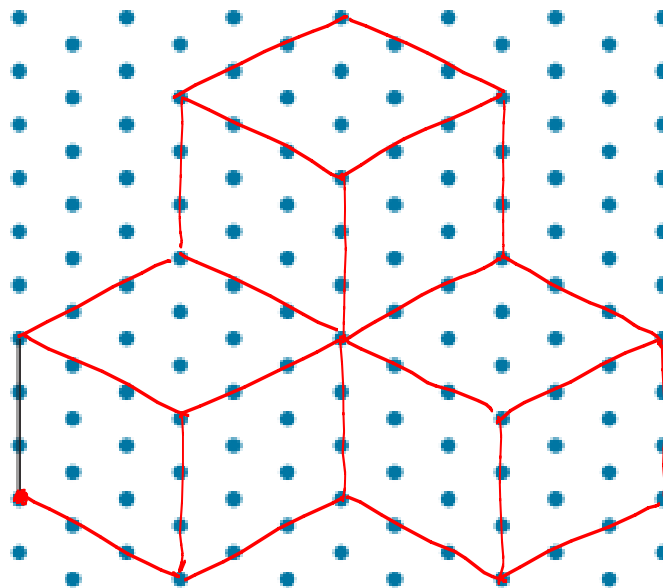
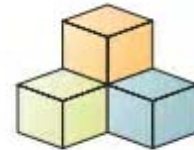
Example 2: Drawing a Net from a Solid.

Draw a net for the figure at the right. Label the net with its dimensions.



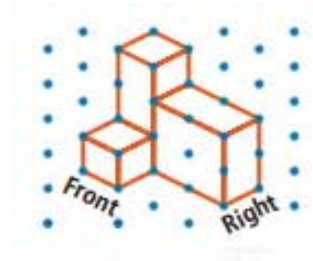
Example 3: Isometric Drawing

The isometric dot paper shows 2 vertices and 1 edge of the cube structure. Complete the isometric drawing.

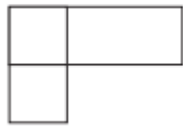


Example 4: Orthographic Drawing

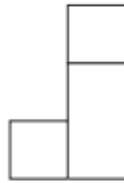
If you built the figure out of cubes, how many would you have to use.



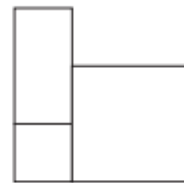
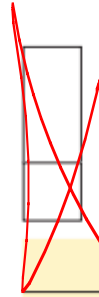
Cross out the drawing below that is NOT part of the orthographic drawing. Then label each remaining drawing. Write *Front*, *Right*, or *Top*.



Top

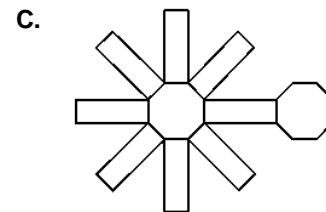
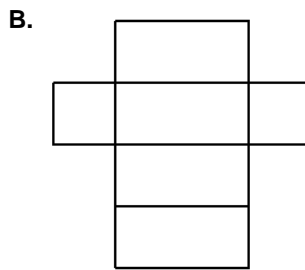
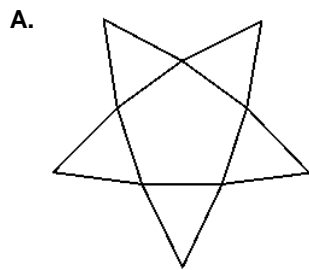
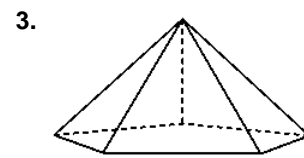
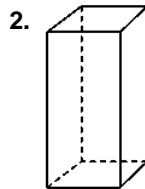
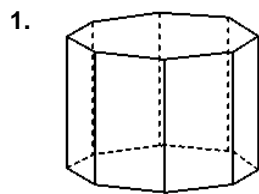


Right

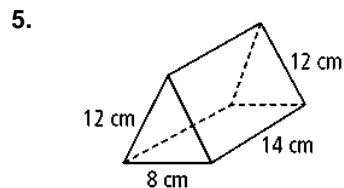
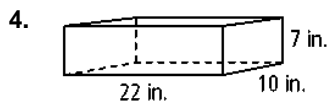


Front

Match each three-dimensional figure with the sketch of its net.

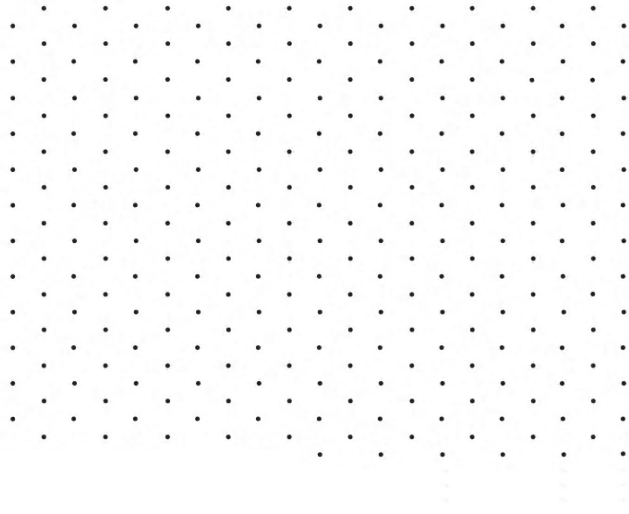
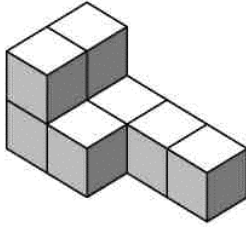


Draw a net for each figure. Label the net with its dimensions. To start, visualize opening the end flaps of the prism.

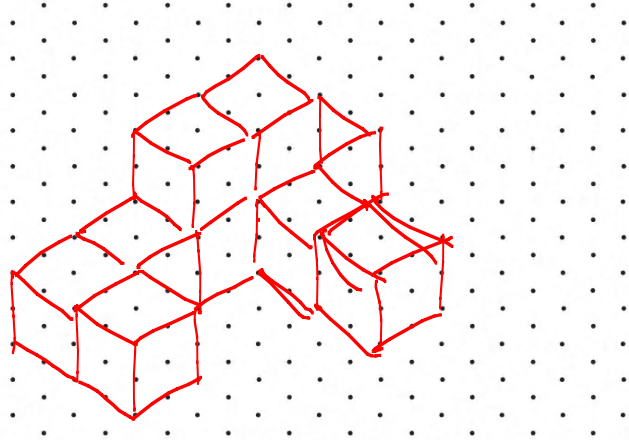
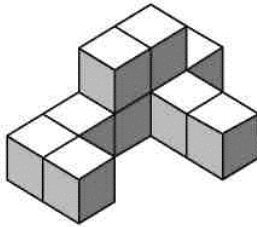


Make an isometric drawing of each cube structure on isometric dot paper. To start, draw the front edge.

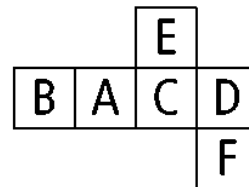
6.



7.



8. **Visualization** If the net shown at the right is folded so that side A is the front of the cube, what letters will be on the top, bottom, right, left, and back?



1-1

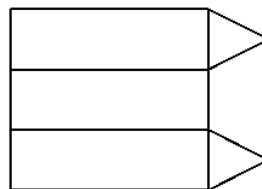
Practice (continued)

Form K

9. Multiple Representations How many different nets can you make for a cube? Draw at least five nets.

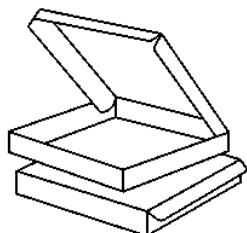
10. Reasoning Are there more, fewer, or the same number of nets possible for a rectangular prism than for a cube? Explain.

12. Error Analysis A classmate drew the net of a triangular prism shown at the right. Explain the error in your classmate's drawing. Draw the net correctly.

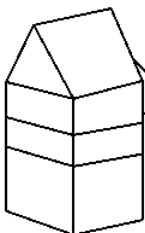


Match the package with its net.

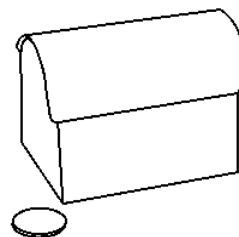
13.



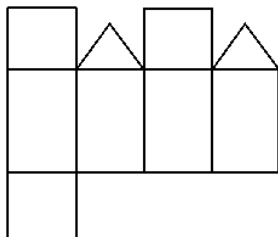
14.



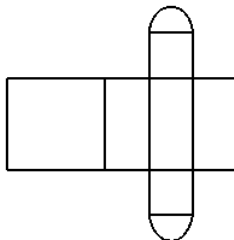
15.



A.



B.



C.

