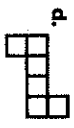
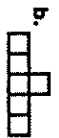
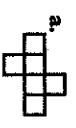




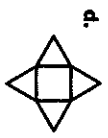
Nets That Catch Cubes

Applying Skills

1. Which of the nets below can be folded up into a cube?

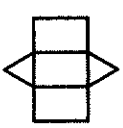
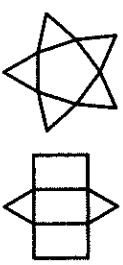


2. Which nets below can be folded up into a three-dimensional figure like this one?



Extending Concepts

3. a. Describe and sketch the solid that you could get by folding each net.



b. For each solid draw two more nets, both different from the one shown.

4. The three-dimensional figure shown is a cube with one corner cut off. How many vertices, edges, and faces does it have? Draw a net for the solid.



Writing

5. Answer the letter to Dr. Math.

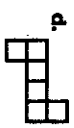
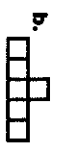
<input type="radio"/>	Dear Dr. Math,
<input type="radio"/>	If I have a net for a solid, I know how I can predict the number of vertices the solid will have. First I draw all the two-dimensional shapes that make up the net separately:
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	Then I count the number of vertices for each shape and add them up. Here, for example, we have a total of 24 vertices. Then I divide that number by 3, because when you fold up a net, three faces always meet at each vertex of the solid. So here I predict $\frac{24}{3} = 8$ vertices, which is the number of vertices of a cube. Isn't this a great method?
<input type="radio"/>	Manny Faces.



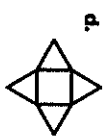
Nets That Catch Cubes

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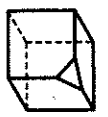
Extending Concepts

3. a. Describe and sketch the solid that you could get by folding each net.



b. For each solid draw two more nets, both different from the one shown.

4. The three-dimensional figure shown is a cube with one corner cut off. How many vertices, edges, and faces does it have? Draw a net for the solid.



Writing

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