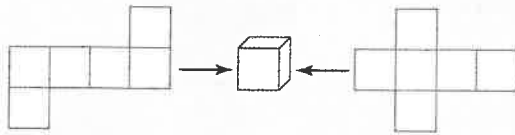




## Connect and Reflect

### Key Ideas

- A net is a 2-D shape that, when folded, encloses a 3-D object.
- You can create the same 3-D object by folding different nets.

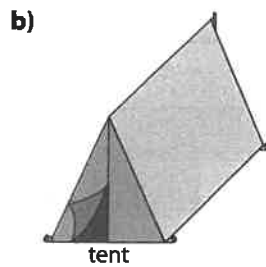


- You can draw a net for an object by visualizing what it would look like if you cut along the edges and flattened it out.

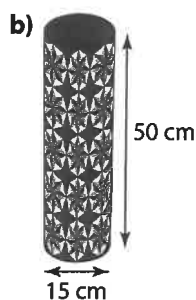
### Practise

For help with #1 to #4, refer to Example 1 on page 45.

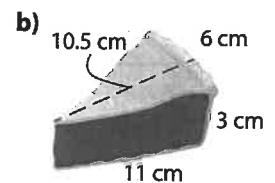
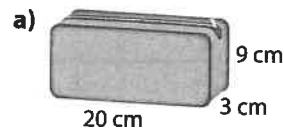
1. Sketch a net for each object.



2. Draw a net for each object. Label the measurements on the net.



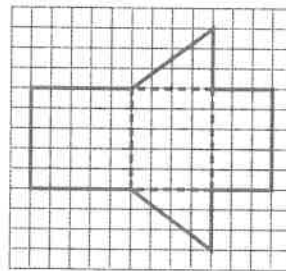
3. Draw a net for each object. Label the measurements on the net.



4. Draw a net on grid paper for a rectangular prism with a length of 6 units, width of 4 units, and height of 2 units.

For help with #5 and #6, refer to Example 2 on page 46.

5. a) Draw the net on grid paper, as shown. Cut along the outside edges of the net and fold it to form a 3-D object.

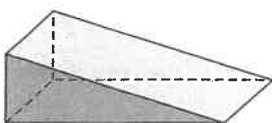


b) What is this object called?

6. Match each solid with its net. Copy the nets, and then try to create the 3-D objects.



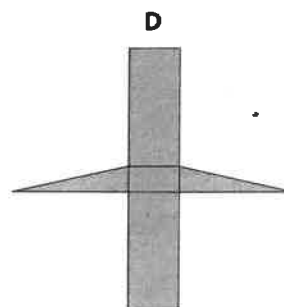
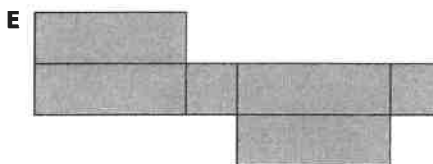
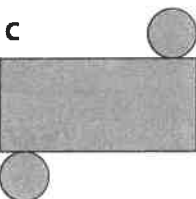
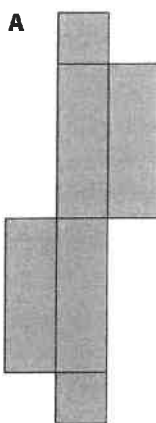
rectangular prism



triangular prism

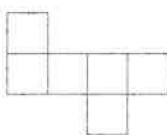


cylinder

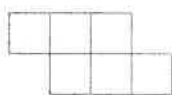


**Apply**

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



Net A



Net B



8. A box of pens measures 15.5 cm by 7 cm by 2.5 cm. Draw a net for the box on a piece of centimetre grid paper. Then, cut it out and fold it to form the box.

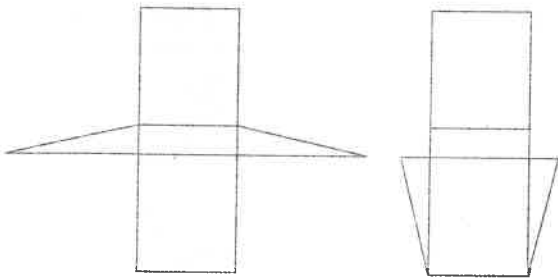
9. **Competency Check** Patricia cannot figure out if a net will build the correct 3-D object. She asks you for help after school. Use an example to show how you would help her decide whether a net can build a particular 3-D object.



10. You are designing a tissue box similar to the one shown. Draw a net of your box with designs on each side and on the top. Leave the bottom plain.



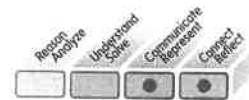
11. Simon designs two nets.



- a) Enlarge both nets on grid paper and build the 3-D objects they form.  
b) What object does each net form?

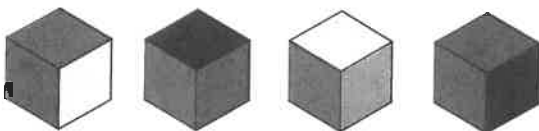
### Extend

12. Hannah and Dakota design a spelling board game. They use letter tiles to create words. Players can stack tiles (limit of four) on top of letters already used on the board to form a new word.



- a) Draw a 3-D picture of what these stacked tiles might look like.  
b) Draw a top view that shows the stacked tiles for people reading the instructions.

13. The six sides of a cube are each a different colour. Four of the views are shown below.



- a) What colour is on the opposite side of each of these faces?  
• purple  
• blue  
• red  
b) Draw a net and colour the faces to represent the cube.

14. **Competency Check** Sketch as many different nets that form a cube as you can. Describe a strategy to help you know when you have sketched all the possible nets for a cube.

