5 Chapter Review

Key Words

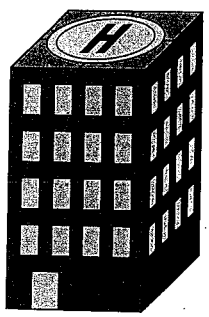
Unscramble the letters for each puzzle in #1 to #6. Use the clues to help you solve the puzzles.

1. E T N
   a flat diagram that you can fold to make a 3-D object
2. U S F A R E C E R A A
   the sum of the areas of the faces of an object (2 words)
3. I R H T G R P M S I
   a prism whose sides are perpendicular to its bases (2 words)
4. E C N I Y D R L
   a 3-D object with two parallel circular bases
5. I R A G N R U A L T S I M R P
   a 3-D object with two parallel triangular bases (2 words)
6. L E U C A A N R G T R I R M S P
   a 3-D object with two parallel rectangular bases (2 words)

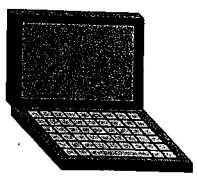
5.1 Views of Three-Dimensional Objects, pages 164–169

7. Draw and label the top, front, and side views for these objects.

a)

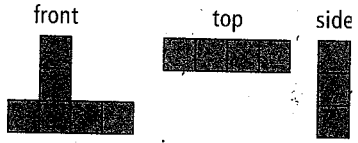


b)

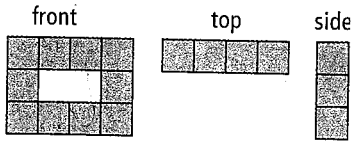


8. Using isometric paper, draw each 3-D object from the views given.

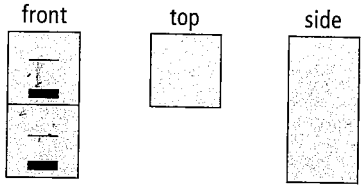
a)



b)



9. A filing cabinet is in the far corner of an office. Shay is redecorating the room and wants to turn the cabinet 90° clockwise. Here are the views before the turn:



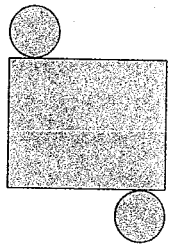
a) How does each view change after the turn?

b) Draw and label the top, front, and side views of the filing cabinet after it is turned.

5.2 Nets of Three-Dimensional Objects, pages 170–175

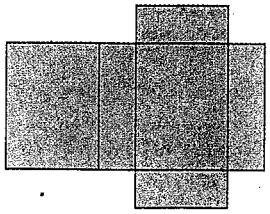
10. Name the object formed by each net.

a)



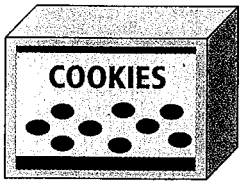
b)

c)



11. Draw the net for each object.

a)



b)

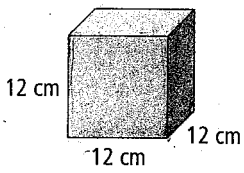
12. Using two pieces of grid paper, create a pencil box and lid. Draw a net, cut it out, fold it, and build your pencil box. Make sure new pencils fit in it!

5.3 Surface Area of a Prism, pages 176–181

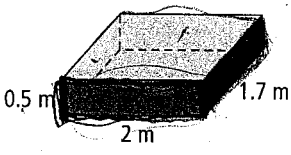
For #13 to #16, calculate the surface area to the nearest tenth of a square unit.

13. What is the surface area of each object?

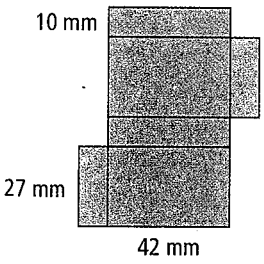
a)



b)

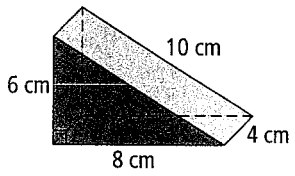


14. Using the measurements shown on the net of the rectangular prism, calculate the surface area.

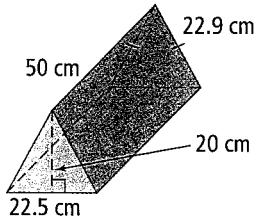


15. Find the surface area of each triangular prism.

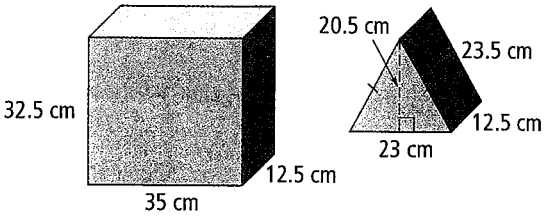
a)



b)



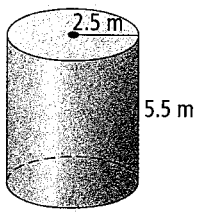
16. Liza had two more gifts left to wrap when she ran out of paper. Approximately how much more wrapping paper does she need to finish wrapping her gifts? Assume no overlap.



5.4 Surface Area of a Cylinder, pages 182–187

For #17 to #19, calculate the surface area to the nearest tenth of a square unit.

17. Determine the surface area of the cylinder.



18. The pencil sharpener on Kay's desk has a diameter of 3.4 cm and is 7 cm tall. Calculate the surface area.

19. The circumference of a container's lid is 157 cm. If the container is 102 cm tall, what is the surface area of the container?