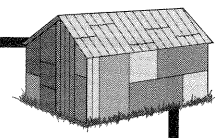
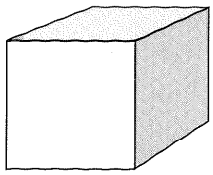


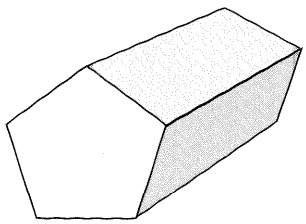
Additional Practice Problems for Activity 10

1. Each edge of the cube below has a length of four centimeters. Find the surface area of the cube and explain how you got your answer:

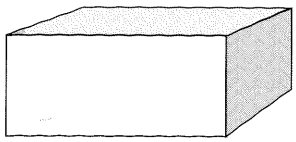


2. The area of the base of a cylinder is about 50 cm^2 and the circumference of the base is about 25 cm. If the cylinder has a height of 11 cm, what is the surface area of the cylinder? Explain how you got your answer.

3. The area of each of the two ends of the hexagonal prism below is 36 cm^2. If the area of one of the rectangular sides is 45 cm^2, what is the surface area of the entire hexagonal prism? Explain how you found your answer:



4. The rectangular prism shown below has length of 10 cm, a width of 4 cm, and a height of 4 cm. Find the surface area of the prism and explain how you found your answer:



5. Suppose the prism from problem 4 above has each of its dimensions doubled.
   a) What are the dimensions of the new prism?

   b) What is the surface area of the new prism?

   c) How does the surface area of the prism from problem 4 compare with the surface area of the new prism with doubled dimensions? Explain your reasoning.