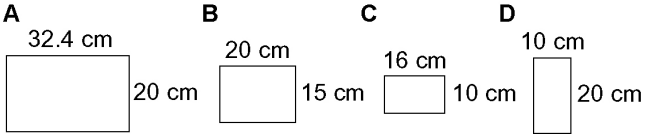
Name: _____ Date: _____

BLM 6–16

Chapter 6 Review

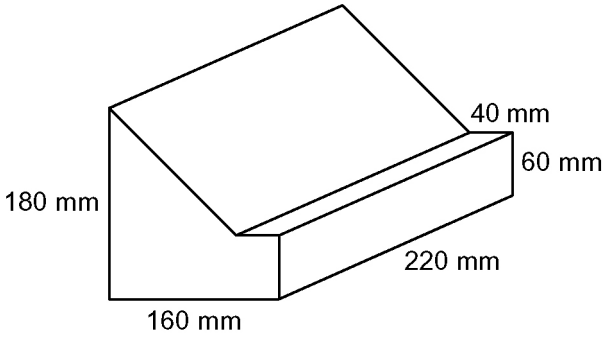
6.1 Investigate Geometric Shapes and Figures, pages 296-305

1. Which rectangles are golden rectangles?

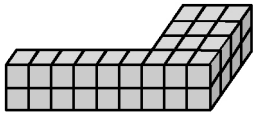


2. Perspective and Orthographic Drawings, pages 306-317

2. Create three orthographic drawings of the object showing front view, top view, and side view. Include the dimensions.



3. a) Use linking cubes to build a model of the object.



b) Make an isometric perspective drawing of the object.

c) Make three orthographic drawings of the object.

6.3 Create Nets, Plans, and Patterns, pages 318-324

4. Create a net for a 250 mL tetra pack juice box. Include measurements for your net. Hint: 1 mL = 1 cm^3.

5. Draw a pattern that can be used to construct an open box that is 20 cm high, 40 cm wide, and 60 cm long.

6.4 Scale Models, pages 327-334

6. Create a scale drawing of a container that could hold CDs and computer game magazines. Include the dimensions in your diagram.

7. Design a desk organizer with a place for pens, paper clips, CDs, and a message pad. What types of material would you use for the construction? Explain.

8. Look through a flyer or catalogue for an object where the dimensions are given in the description of the item. Select a scale and draw a scale diagram of the item.

6.5 Solve Problems With Given Constraints, pages 335-343

9. What reason would a company have to create a package that has a fixed volume but a minimum surface area?

10. A circular tank with a radius of 30 m and a depth of 1 m is used to hold liquid chemical waste. The tank sits in a large circular reservoir, also with a height of 1 m, which can contain possible leaks.

a) What is the minimum radius of the reservoir that can contain all the waste in the tank?

b) To be safe, the capacity of the reservoir will be increased by 20%. What is the new radius?

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