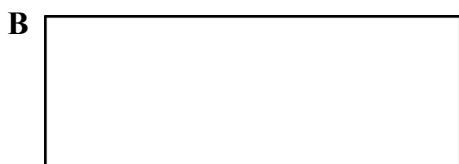# Chapter 6 Test

Choose the best answer for questions 1 to 5.

1. Which rectangle is closest to a golden rectangle?

A

B

C

D

2. Which geometric shape can be used to tile a plane?
   A square   **B** circle
   C regular octagon   **D** regular heptagon

3. Which view is not part of an orthographic drawing?
   A front   **B** side
   C top   **D** bottom

4. Which cannot effectively be used to represent a three-dimensional object?
   A a scale model
   B blueprints
   C isometric perspective drawings
   D orthographic drawings

5. A standard basketball has a diameter of 24.8 cm. Design a container that will hold two basketballs?
   a) Sketch a set of orthographic drawings for the package. Include measurements.
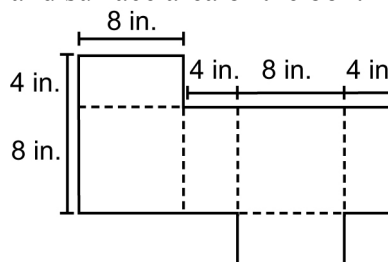   **b)** Sketch a net that can be used for the package. Include measurements.

6. Draw the orthographic projections of the geometric shape.

7. Draw an isometric perspective drawing of the object from question 7.

8. An urban planner used a scale of 1:50 to build a model of a town. A tree is 3.25 m tall. How tall would the tree be in the model?

9. The net of a box is shown. Find the volume and surface area of the box.

8 in.
4 in. | 4 in. 8 in. 4 in.
8 in.

10. A company wants to make a cylindrical storage container out of a sheet of metal that has an area of 72 m^2.
   a) Determine the dimensions of the container with a maximum volume, to the nearest tenth of a metre.
   b) Determine the number of litres the container can hold. Hint: 1 m^3 = 1000 L.