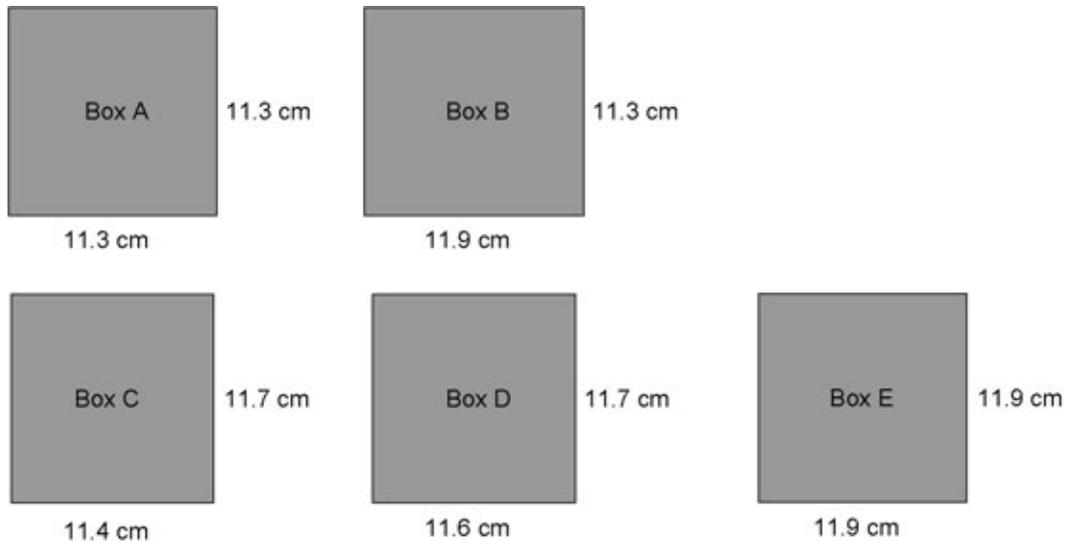


## Section 3.3 Math Link

This worksheet will help you with the Math Link on page 100.

You have created a peg board game called Mind Buster. The square game board has a base area of  $134 \text{ cm}^2$ . You go to the store to get a box for storing the game. You find five boxes with the base dimensions shown.



1.
  - a) If you are given the area of a square, how do you find the side length of the square? For example, if the area of a square is  $49 \text{ cm}^2$ , its side length is 7 cm.
  - b) What is an estimate for the side length of the square game board that has a base area of  $134 \text{ cm}^2$ ? Give your answer to one decimal place.
  - c) Use a calculator to determine the side length of the square game board, to the nearest tenth of a centimetre.
2.
  - a) Which boxes cannot store a game board with the dimensions you determined in #1c)?
  - b) Which box or boxes can store the game board? Explain how you know.
3.
  - a) What is the smallest box that will hold the game board?
  - b) What are the dimensions of this box?
  - c) Which box would you choose? Why?