

ACTIVITY

134. Lori has some wooden beams which she wants to use to build a sandbox in her backyard. She wants the sandbox to be triangular in shape. The beams have the following lengths: 12 ft., 8 ft., 4 ft., and 5 ft.

- a. Cut out strips of paper which have lengths of 12 cm, 8 cm, 5 cm, and 4 cm to model the 4 beams.
- b. Choose 3 strips, and arrange them to form a triangle on some flat surface.
- c. Can Lori use any 3 of the beams to make her sandbox area? If not, which sets of 3 can she use? Why can't she use the others?
- d. Could Lori use all 4 beams to make a 4-sided sandbox? If not, explain why not. If she could, show how the 4 beams could be arranged. Do all the 4-sided sandboxes that could be made have to be congruent? How do you know this?