1. Trace the figure without lifting the pencil or retracing any of the lines.

2. A building has 100 square rooms forming a square 10 by 10 rooms. Each room has a door leading to each of the adjacent rooms and a window in each exterior wall. Find the total number of doors and windows in the building.

3. Cut a circle into 4, 5, 6, 7 parts by three straight lines.

4. Find a shape of an apple pie such that it would be possible to cut it into 4 pieces by one straight line.

5. Cut a square into two congruent pentagons; hexagons.

6. Cut the pentagon in the diagram into two congruent pieces.

7. There is a small circle on a rectangle. Cut them by a straight line so that the rectangle and the circle would be cut into two congruent pieces each.

8. In his voyage to the Lilliput, Gulliver found that all the things are 12 times shorter than in his country. How many Lilliput’s lunch boxes would fit into Gulliver’s one?

9. From a rectangle 22 × 15 inches cut out as many 3 × 5 rectangles as possible.

10. Find the area of a triangle with sides 18, 17, 35.

11. Make a square using four of the five figures.