Cassie is a civil engineer. Her home town gave her a contract to enlarge the town's pond. The pond is in the shape of a regular hexagon. Cassie's task is complicated by the fact that there are six trees surrounding the pond, one at each vertex of the hexagon, as is shown in the left side of the figure. The town council told her that she must not move the trees. The town's residents like to sit by the side of the pond and watch the ducks. Since the populations of both ducks and people are growing, the town wants to increase both the perimeter and area of the pond.

Cassie made a drawing of the enlarged pond, which is shown in the right side of the figure. Her ingenious solution involves digging out six patches of land, each in the shape of an equilateral triangle. Each of these triangles has side lengths equal to that of the original hexagon. In her drawing, she placed each triangle right against one side of the hexagon pond.

1. Compared to the area of the original pond, how many times larger is the new pond, and how do you know?

2. Compared to the perimeter of the original pond, how many times larger is the new pond, and how do you know?

Don't forget, to receive credit you need to give me a correct answer and explanation for both parts! Good Luck!