Triangles

Write an application that manages a collection with a data structure that allows storing **triplets of real numbers**. These are numbers representing the sides of a triangle. The application should provide the following functionalities:

a. Only the triplets that can be sides of a triangle are returned from the collection.

b. The triplet with the largest and the smallest area is returned from the collection, along with the ratio of these areas.

c. Prepare another data collection with a structure in which you store triplets of points in a coordinate system. Each element in the collection consists of three points with x and y coordinates. Based on the main collection and this new collection, check which i-th element of the first collection has side lengths that match the i-th element of the second collection, meaning that a triangle with vertices at the given coordinates can have the side lengths given in the second collection at the same position. Return a list of objects that will contain both the information about the points and the calculated side lengths.

d. Return a list of triangles that are right-angled triangles.

From these triangles, determine the one with the largest perimeter.