Jigsaw puzzle is a well-known puzzle game that has been around for centuries. However, in addition to entertainment purposes, an ability to reassemble images from pieces has practical applications and can be useful, for example, in restoring torn or cut documents or broken objects in archaeology. Most of the proposed solutions reconstruct the images divided into square pieces. In this work, we propose our solutions for the new types of puzzles with more interesting shapes of pieces, such as rectangles of equal and different sizes, and triangles. The accuracy of our solvers is at the same level as that of the solutions for reconstruction of images from square pieces. Moreover, our solvers, unlike the others, have been tested on images with text as well as on color and black and white photographs.