Dessin D’enfants, which are bipartite ribbon graphs, have been used for studying the topology of curve complements in recent years. In this paper, we define a new equivalence relation for Dessin D’enfants and classify them up to total degree 5. We also show the deformation spaces of Dessin D’enfants for each class. Both the classification and the deformation have an important role in understanding topology of corresponding curves. (Received September 19, 2016)