

A diagram of a graph with two vertices and two edges. The vertices are marked with a cross (X). The edges are labeled with the number 1.

A diagram of a genus-2 surface, which is a torus with two handles. The surface is represented by two large, horizontally-oriented ovals. The left oval has a small circle with an 'X' inside its leftmost point. The right oval has a small circle with an 'X' inside its rightmost point. These two ovals are connected by a central rectangular region. Inside this central region is a blue number '2'.

A diagram of a torus (a surface of genus 1) with a blue '0' on the left and a blue 'x' on the right.

A diagram of a 3-regular graph with 6 vertices and 9 edges. It consists of three cycles of length 4 connected in a chain. The middle cycle has a blue '1' and the right cycle has a blue '0'.

A diagram consisting of four ovals arranged in a horizontal chain, connected by three small squares. The first oval on the left contains a circled 'X'. The three connecting squares each contain a blue '0'. The last oval on the right also contains a circled 'X'.