

The left diagram shows a graph with 7 vertices and 10 edges. The edges are labeled with numbers 1 through 10. The edges are highlighted in red and blue. The red edges are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. The blue edges are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. The edges are labeled with numbers 1 through 10. The edges are highlighted in red and blue. The red edges are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. The blue edges are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

The right diagram shows the same graph with more edges highlighted in red, indicating the selection of edges that do not create a cycle or a vertex with a degree greater than 2. The red edges are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. The blue edges are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

[illegible]