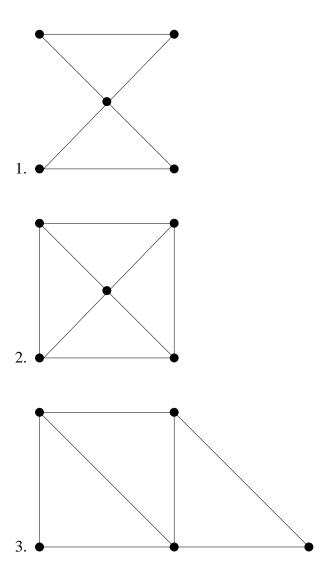
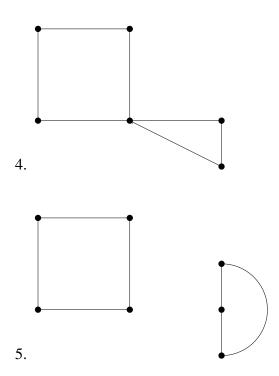
VanWyk's 103

Section 6.4 Homework Problems

Which of the following graphs is Eulerian? Of those that do not have a closed edge path, which have an open edge path?





VanWyk's 103

Section 6.4 Homework Answers

Note. An *odd* vertex is a vertex of odd degree, and an *even* vertex is a vertex of even degree.

- 1. All the vertices of this graph are even, so it is Eulerian.
- 2. This graph has four odd vertices, so it does not even have an open edge path.
- 3. This graph has exactly two odd vertices, so it has an open edge path but not a closed edge path. See if you can find an edge path starting at one of the odd vertices and ending at the other.
- 4. All the vertices of this graph are even, so it is Eulerian.
- 5. Although all the vertices of this graph are even, it is not connected, so it doesn't even have an open edge path.