LARSON—MATH 356—CLASSROOM WORKSHEET 12
Cycles, Bipartite Subgraphs.

Concepts & Notation

- Sec. 1.2: subgraph.
- Sec. 1.2.1: walk, trail, path, length, closed walk, cycle, connected, disconnected, component.
- Sec. 1.2.2: spanning subgraph, complete graph $K_n$, cycle graph $C_n$, path graph $P_n$, bipartite graph, Hamiltonian.

1. Find a connected subgraph $H$ in the Petersen graph which is bipartite and has 5 vertices. List its vertices $V(H)$ and edges $E(H)$.

2. Draw $H$. 
3. Can you draw a bipartite graph with an odd cycle? Draw some examples. Doodle. Try!

4. Why not? Can you find an explanation?