1. { 4 points } Determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path, if one exists.

2. { 4 points } Same as above but for a Hamilton circuit and a Hamilton path.

3. { 2 points } How many vertices does a full binary tree with 30 internal vertices have?