Math 1116, Quiz #5, Fall 2013 Name KEY

**Instructions**: Clearly label all graphs and the paths you take with arrows.

1. How many ways are there to get a hand of 5 cards where all the cards are diamonds?

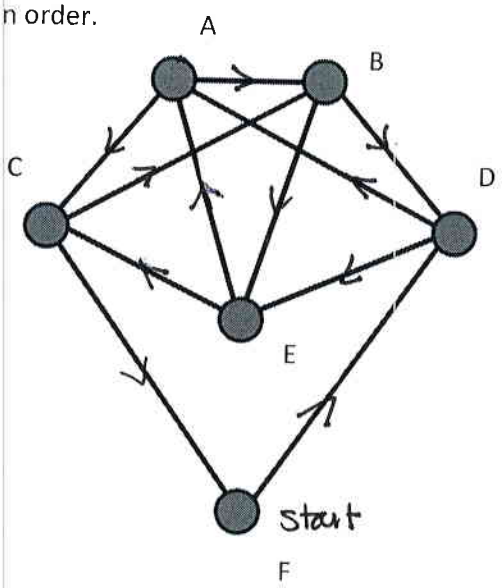
$13C5 = \binom{13}{5} = 1287$

2. Determine whether the graph has an Euler circuit, an Euler path or neither. If it has either a path or a circuit, find one and list the edges you pass through in order.

A: 4
B = 4
C = 4
D = 4
E = 4
F = 2

FDECBDABEACF

answers will vary.




has an Euler circuit since all vertices have even degree.

3. Eulerize the graph below. Assume each corner or junction is a vertex.

the optimal Eulerization is shown