

$V: \{1, 2, 3, 4, 5\}$

$E: \{a, b, c, d, e, f\}$

$g(a) = (1, 2)$

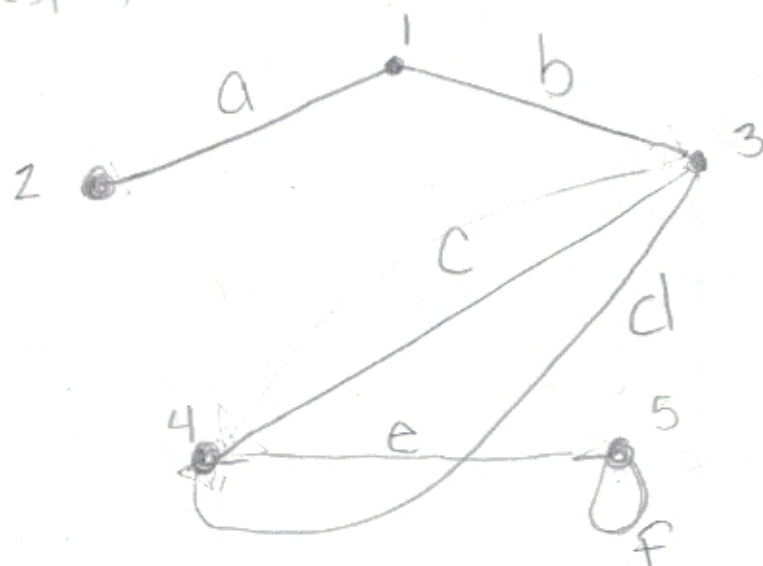
$g(b) = (1, 3)$

$g(c) = (3, 4)$

$g(d) = (3, 4)$

$g(e) = (4, 5)$

$g(f) = (5, 5)$



2 unadjacent nodes: 2, 3  
3, 5

Node adjacent to itself: 5, 5

loop: f

two parallel edges: c, d

degree of node 3: 4

path of length 5: 2, a, 1, b, 3, c, 4, e, 5, f, 5

Find a cycle: 3, c, 4, d, 3

Is your graph complete? no

Connected: yes

