

$$G(0) = 2$$
 $G(A) = G(0)$
 $G(1) = 4$ $G(B) = G(1)$
 $G(2) = 2$ $G(C) = G(2)$
 $G(3) = 1$ $G(D) = G(3)$
 $G(4) = 1$ $G(E) = G(4)$