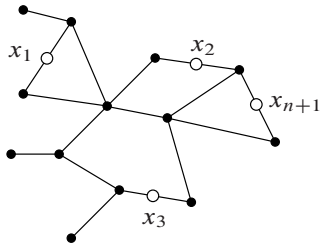


(a) $n = 1$ step.



(b) Inductive step.