

1.
(1)

3, 5, 1, 6, 2, 8, 4, 9, 7(スタート)
 3, 5, 1, 6, 2, 8, 4, 7, 9
 3, 5, 1, 6, 2, 4, 8, 7, 9
 3, 5, 1, 2, 6, 4, 8, 7, 9
 3, 1, 5, 2, 6, 4, 8, 7, 9
1, 3, 5, 2, 6, 4, 8, 7, 9
 1, 3, 5, 2, 6, 4, 7, 8, 9
 1, 3, 5, 2, 4, 6, 7, 8, 9
 1, 3, 2, 5, 4, 6, 7, 8, 9
 1, 2, 3, 5, 4, 6, 7, 8, 9
 1, 2, 3, 4, 5, 6, 7, 8, 9
 1, 2, 3, 4, 5, 6, 7, 8, 9(終了)

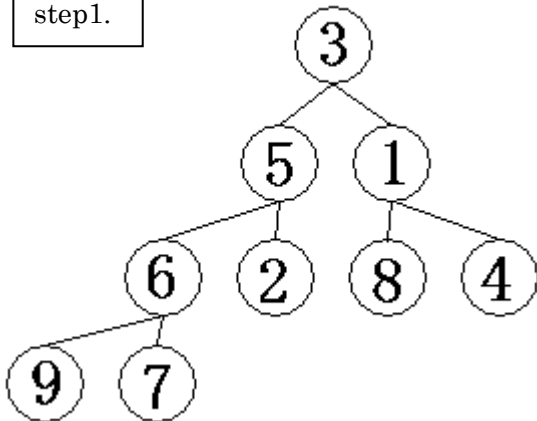
(2)上記より,交換は10回

(3)比較回数 $(n^2 - n)/2$ から $n = 9$ より, 36回

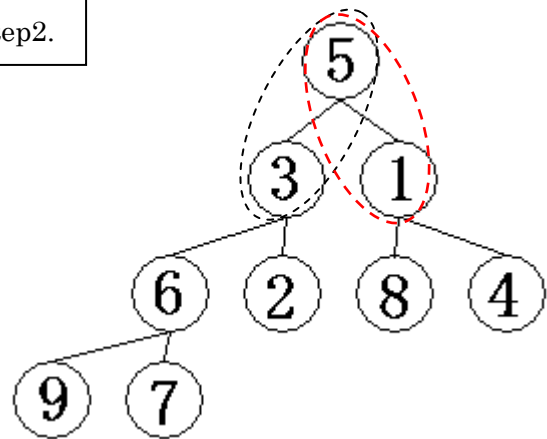
2.
(1)

黒枠は交換,赤枠は比較を表す.

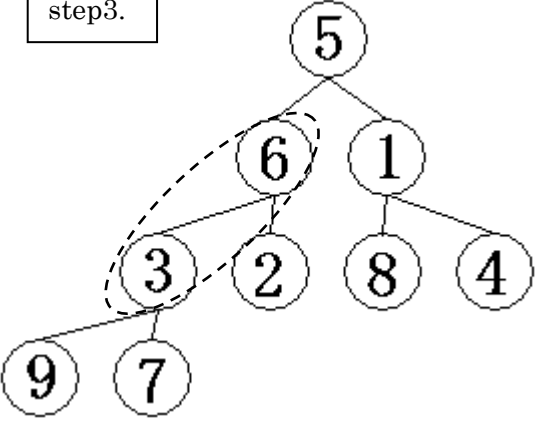
step1.



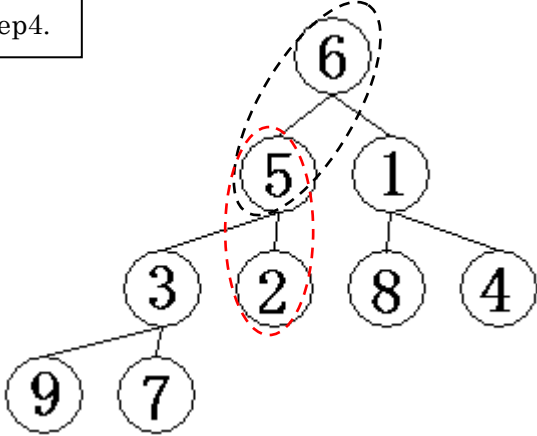
step2.



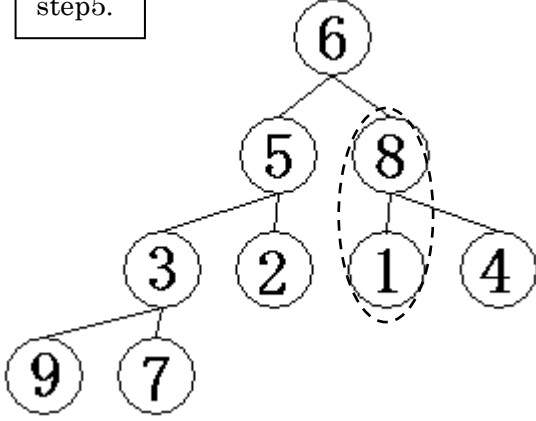
step3.



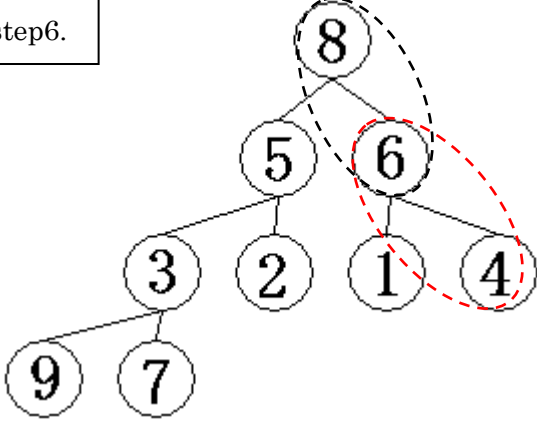
step4.



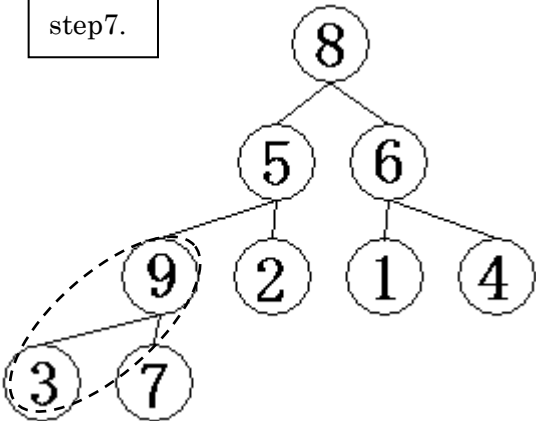
step5.



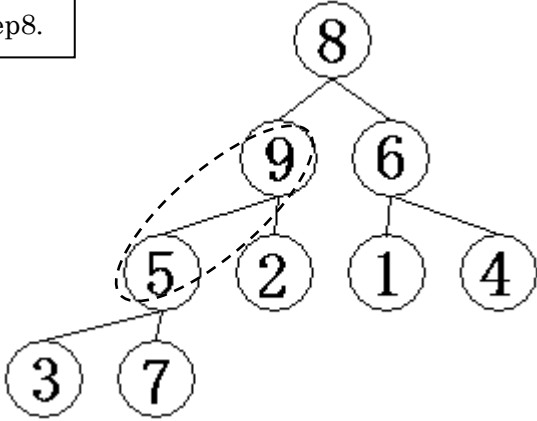
step6.



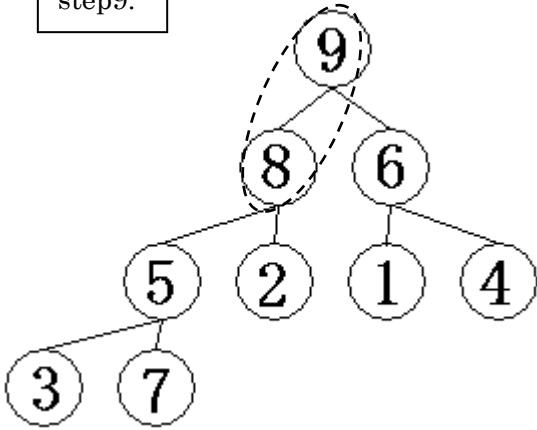
step7.



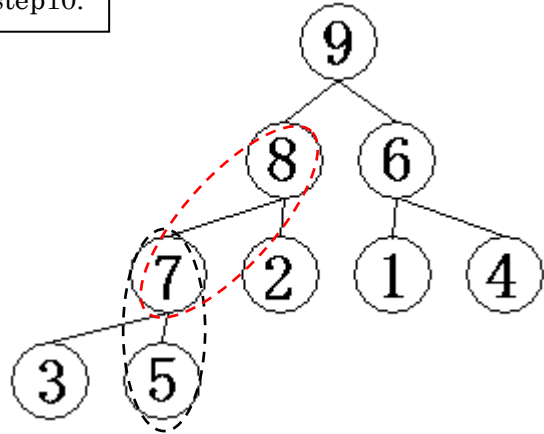
step8.



step9.



step10.



(2)上図より,交換は 9 回行われた.

(3)上図より,黒枠+赤枠が比較回数である.よって比較は 13 回行われた.