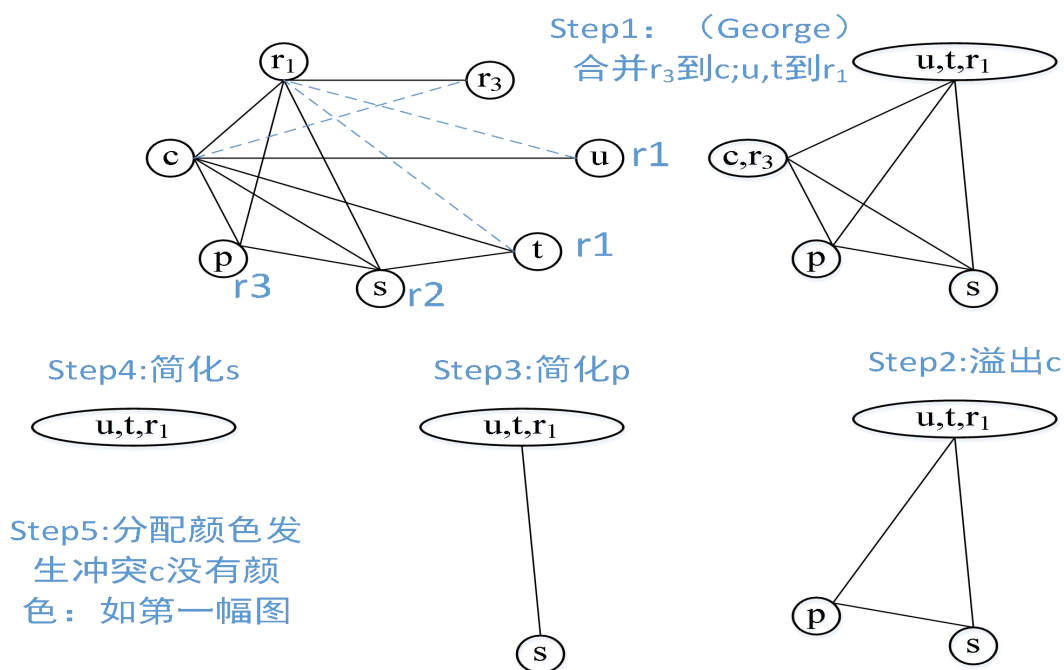
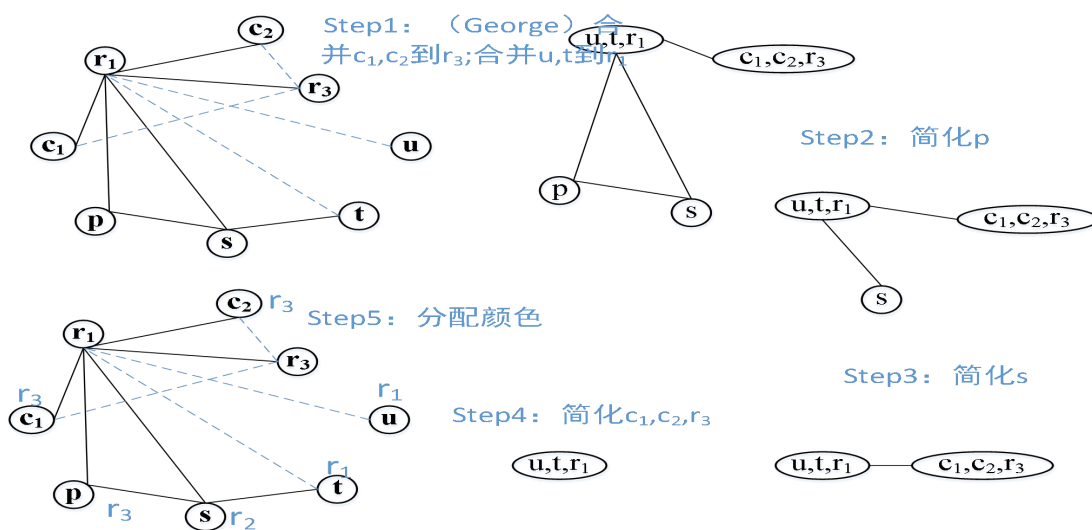


Chapter 11 Register Allocation

11.1



重写代码之后 (修改 c):

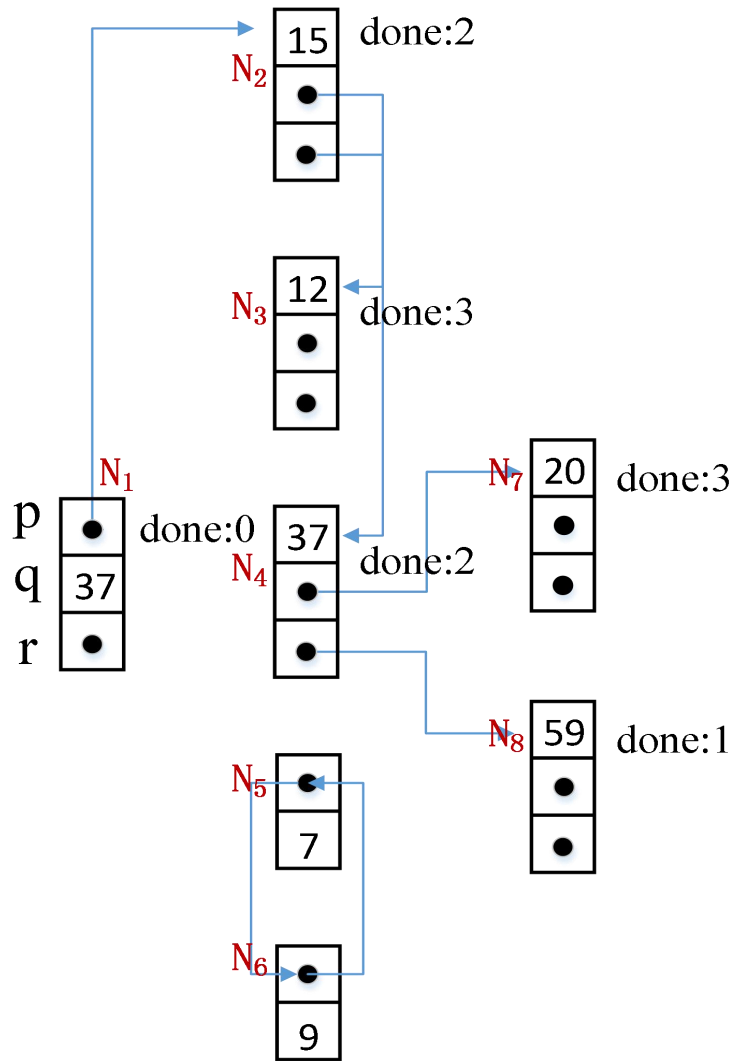


11.3

- a. 有潜在溢出, 无实际溢出;
- b. 无潜在溢出, 无实际溢出。

Chapter 13 Garbage Collection

13.2



t: N_4

x: N_8

y: N_8

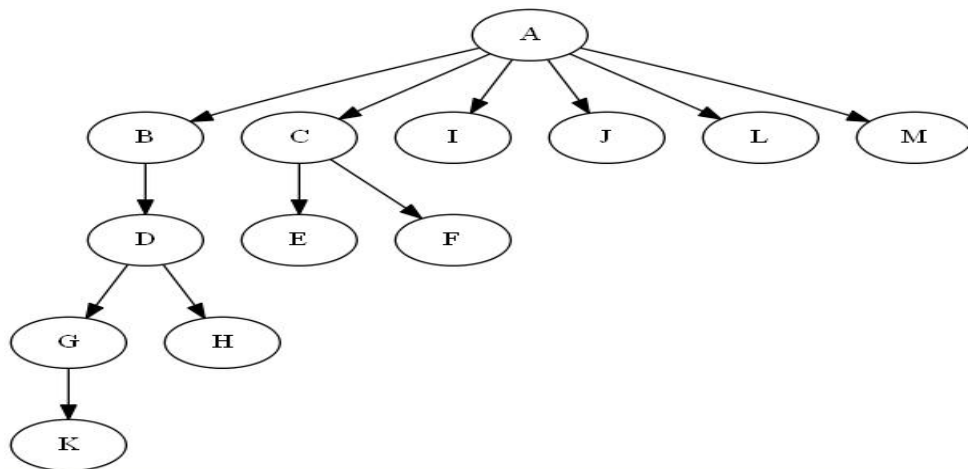
Chapter 18 Loop Optimizations

18.1

(a)

- ✓ D[A]: {A}
- ✓ D[B]: {A, B}
- ✓ D[C]: {A, C}
- ✓ D[D]: {A, B, D}
- ✓ D[E]: {A, C, E}
- ✓ D[F]: {A, C, F}
- ✓ D[G]: {A, B, D, G}
- ✓ D[H]: {A, B, D, H}
- ✓ D[I]: {A, I}
- ✓ D[J]: {A, J}
- ✓ D[K]: {A, B, D, G, K}
- ✓ D[L]: {A, L}
- ✓ D[M]: {A, M}

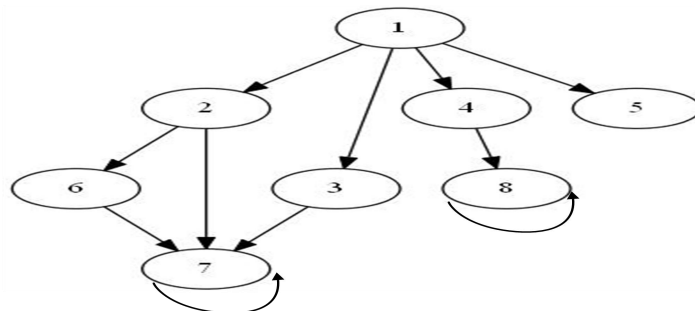
(b)



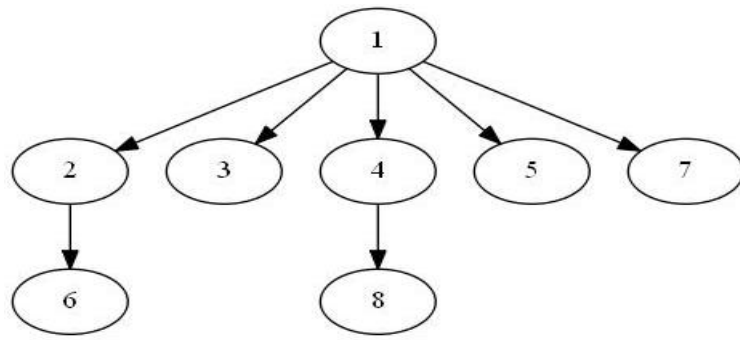
(c) $J \rightarrow C: \{C, E, F\}$ $G \rightarrow B: \{B, D, G, H\}$ $H \rightarrow D: \{D, H\}$

18.2

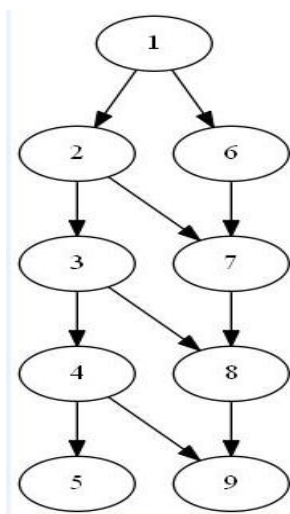
(a)



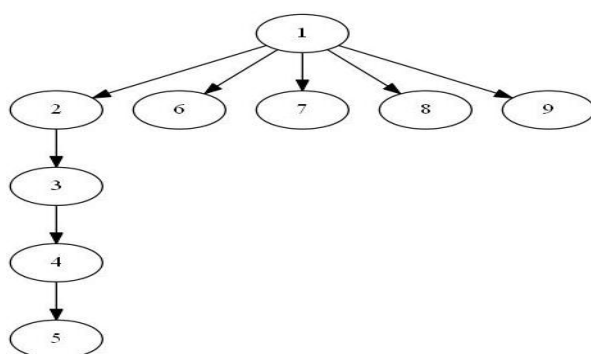
- D[1]: {1}
- D[2]: {1, 2}
- D[3]: {1, 3}
- D[4]: {1, 4}
- D[5]: {1, 5}
- D[6]: {1, 2, 6}
- D[7]: {1, 7}
- D[8]: {1, 4, 8}

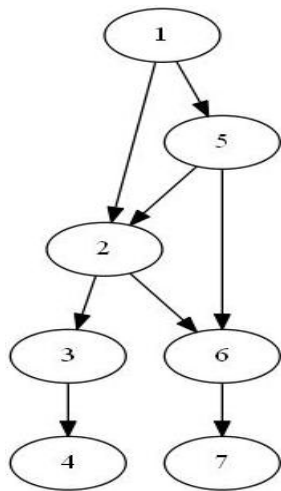


(b)



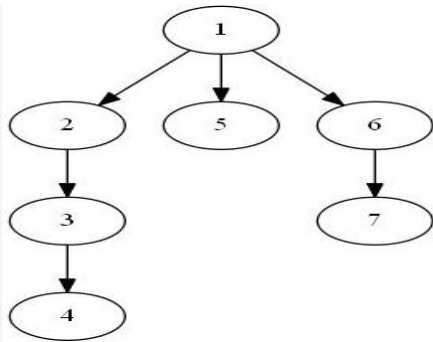
- D[1]: {1}
- D[2]: {1, 2}
- D[3]: {1, 2, 3}
- D[4]: {1, 2, 3, 4}
- D[5]: {1, 2, 3, 4, 5}
- D[6]: {1, 6}
- D[7]: {1, 7}
- D[8]: {1, 8}
- D[9]: {1, 9}



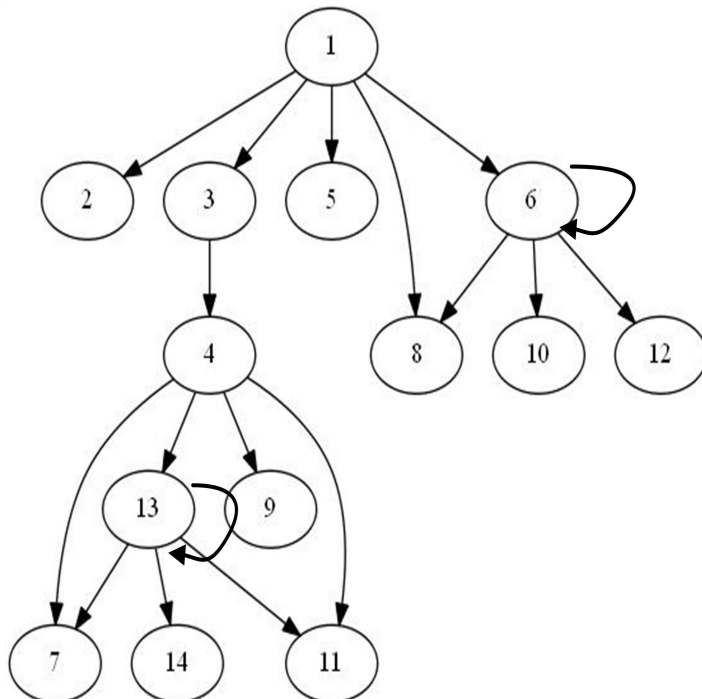


(c)

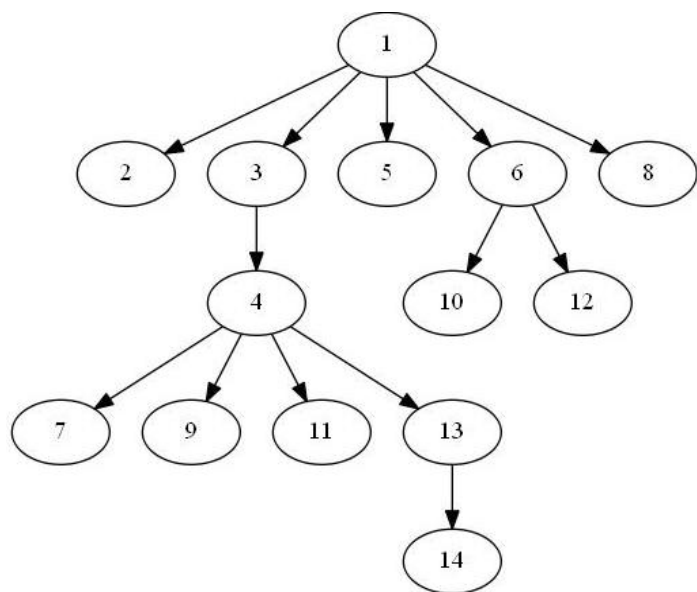
- D[1]: {1}
- D[2]: {1, 2}
- D[3]: {1, 2, 3}
- D[4]: {1, 2, 3, 4}
- D[5]: {1, 5}
- D[6]: {1, 6}
- D[7]: {1, 6, 7}



(d)



- D[1]: {1}
- D[2]: {1, 2}
- D[3]: {1, 3}
- D[4]: {1, 3, 4}
- D[5]: {1, 5}
- D[6]: {1, 6}
- D[7]: {1, 3, 4, 7}
- D[8]: {1, 8}
- D[9]: {1, 3, 4, 9}
- D[10]: {1, 6, 10}
- D[11]: {1, 3, 4, 11}
- D[12]: {1, 6, 12}
- D[13]: {1, 3, 4, 13}
- D[14]: {1, 3, 4, 13, 14}



18.6 假设在原图中有多个节点指向头结点 N_s , 那么可以引入一个节点 N_t , 并将指向 N_s 的节点指向 N_t , 而 N_t 指向 N_s 完成转换。如下图:

