4. a) live range

interference graph

a : (1-8, 9-10)

b : (2 ~ 10)

d : (5 ~ 6, 8 ~ 9)

x : (3 ~ 4, 6, 7 ~ 9)

b) spill cost

a 7/3

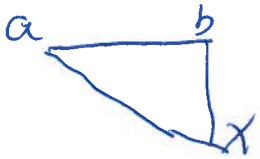
b 4/3

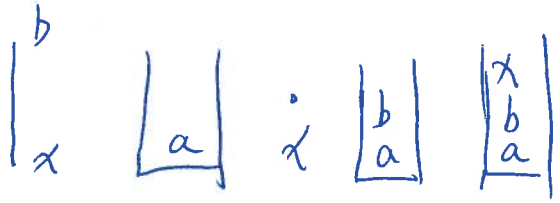
d 4/3

x 6/3

b = d < x < a

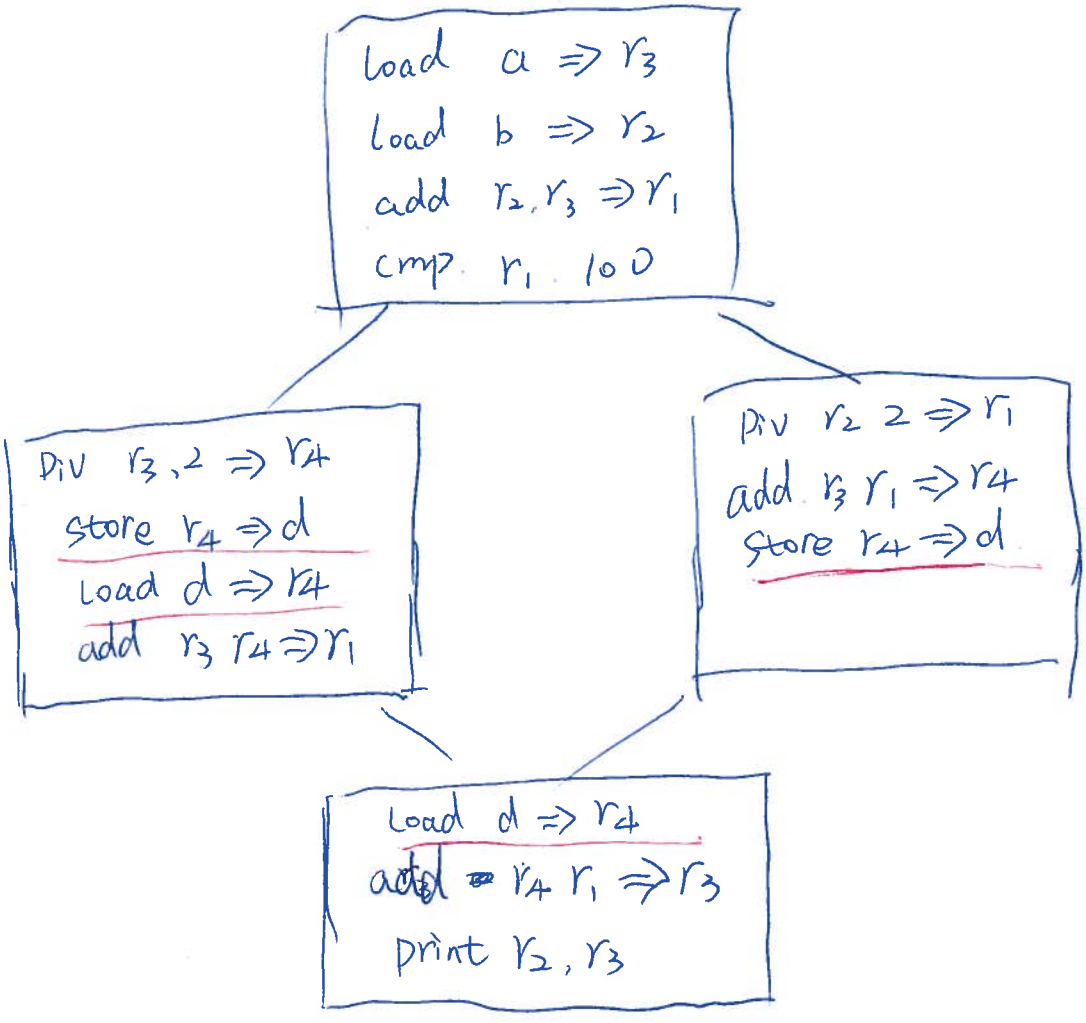
spill d = r4





x ⇒ r1 | b | a

x ⇒ r1, b ⇒ r2 | a

x ⇒ r1, b ⇒ r2, a ⇒ r3 |

c.