Ch8 - 补充习题

1.

```
i=1;
product=1;
count=0;
while(i<=10){
    j=1;
    while(j<=10){
        if(a[i,j]<>0)
        {
            product=product*a[i,j]
            count=count+1;
        }
        j=j+1;
    }
    i=i+1;
}
```

address(a[i,j])
= addrA + [(i-1)*10+(j-1)]*1
= (i*10+j)*1 + addrA - (1*10+1)*1

(1) i=1
(2) product=1
(3) count=0
(4) if i<=10 goto (6)
(5) goto (29)
(6) j=1
(7) if j<=10 goto (9)
(8) goto (26)
(9) $t_1 = 1*10$
(10) $t_2 = t_1+1$
(11) $t_3 = t_2*1$
(12) $t_4 = addrA - t_3$
(13) $t_5 = i*10$
(14) $t_6 = t_5+1$
(15) $t_7 = t_6*1$
(16) $t_8 = t_4[t_7]$
(17) if t_8<>0 goto (19)
(18) goto (23)
(19) $t_9 = 1*10$
(20) $t_{10} = t_9+1$
(21) $t_{11} = t_{10}*1$
(22) $t_{12} = addrA - t_{11}$
(23) $t_{13} = i*10$
(24) $t_{14} = t_{13}+j$
(25) $t_{15} = t_{14}*1$
(26) $t_{16} = t_{12}[t_{15}]$
(27) $t_{17} = product * t_{16}$
(28) product = t_{17}
(29) $t_{18} = count+1$
(30) count = t_{18}
(31) $t_{19} = j+1$
(32) j = t_{19}
(33) goto(7)
(34) $t_{20} = i+1$
(35) i = t_{20}
(36) goto(4)
(37)

2、

```
i=2;
m=0;
loop=0;
while(loop==0 && i<=10){
    j=1;
    while(loop==0 && j<=i)
      if (a[i,j]!=a[j,i]
       { loop=1;
         m=1;
       }
      else j=j+1;
    if(loop==0) i=i+1;
}
```

address(a[i,j])
= addrA-((i*10+1)*1+(i*10+j)*1

address(a[j,i])
= addrA-((j*10+1)*1+(j*10+i)*1

(1) (=, 2, _, i)
(2) (=, 0, _, m)
(3) (=, 0, _, loop)
(4) (j==, loop, 0, (6))
(5) (j, _, _, 0(42))
(6) (j<=, i, 10, (8))
(7) (j, _, _, 5(42))
(8) (=, 1, _, j)
(9) (j==, loop, 0, (11))
(10) (j, _, _, 0(3))
(11) (j<=, j, i, (13))
(12) (j, _, _, 0(3))
(13) (*, 1, 10, t1)
(14) (+, t1, 1, t2)
(15) (*, t2, 1, t3)
(16) (-, addrA, t3, t4)
(17) (*, i, 10, t5)
(18) (+, t5, j, t6)
(19) (*, t6, 1, t7)
(20) (=[], t4, t7, t8)
(21) (*, 1, 10, t9)
(22) (+, t9, 1, t10)
(23) (*, t10, 1, t11)
(24) (-, addrA, t11, t12)
(25) (*, j, 10, t13)
(26) (+, t13, i, t14)
(27) (*, t14, 1, t15)
(28) (=[], t12, t15, t16)
(29) (j!=, t8, t16, (31))
(30) (j, _, _, (34))
(31) (=, 1, _, loop)
(32) (=, 1, _, m)
(33) (j, _, _, (9))
(34) (+, j, 1, t17)
(35) (=, t17, _, j)
(36) (j, _, _, (9))
(37) (j==, loop, 0, (39))
(38) (j, _, _, (4))
(39) (+, i, 1, t18)
(40) (=, t18, _, i)
(41) (j, _, _, (42))
(42)

chp9-补充习题

1.

$E = A + B$

$F = A - B$

$G = E * F$

$H = F + G$

$I = F - G$

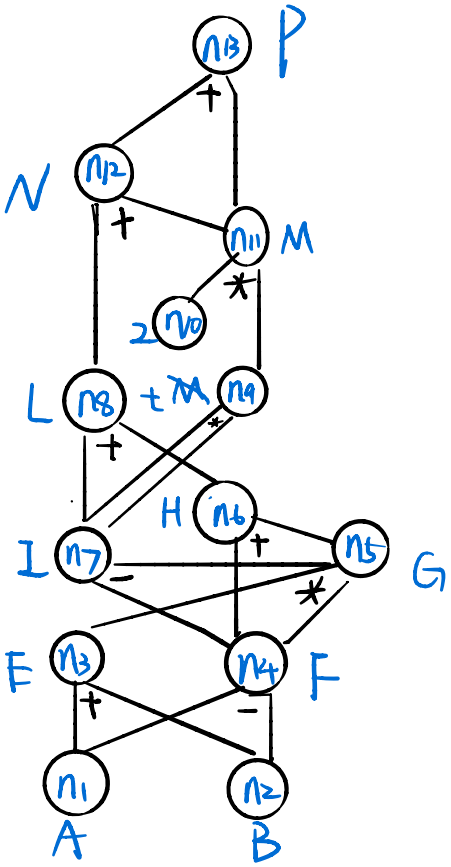
$L = I + H$

$M = I * I$

$M = 2 * M$

$N = L + M$

$P = N + M$



n13 n12 n8 n11 n9 n7 n6 n5 n3 n4

←

(n4) $F = A - B$

(n3) $E = A + B$

(n5) $G = E * F$

(n6) $H = F + G$

(n7) $I = F - G$

(n9) $t = I * I$

(n11) $M = 2 * t$

(n8) $L = I + H$

(n12) $N = L + M$

(n13) $P = N + M$

2.

$A = B * C$

$D = B / C$

$E = A + D$

$F = 2 * E$

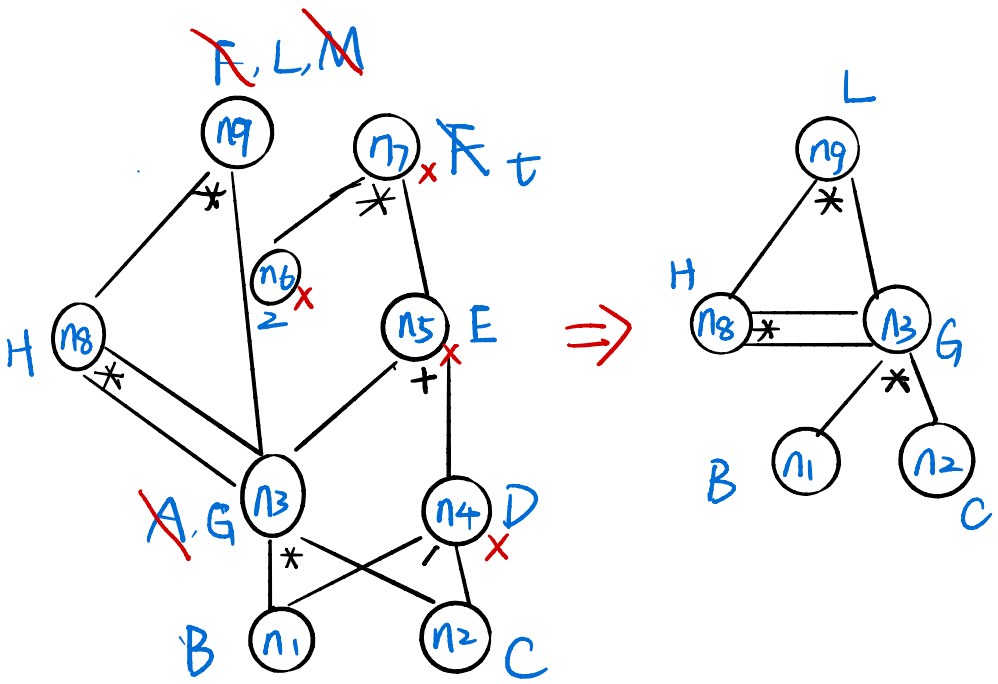
$G = B * C$

$H = G * G$

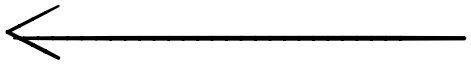
$F = H * G$

$L = F$

$M = L$



n9 n8 n3



n3 $G = B * C$

n8 $H = G * G$

n7 $L = H * G$