

	Allocation	Max	Available	Need
	A B C D	A B C D	A B C D	A B C D
T ₀	3 1 4 1	6 4 7 3	2 2 2 4	3 3 3 2
T ₁	2 1 0 2	4 2 3 2		2 1 3 0
T ₂	2 4 1 3	2 5 3 3		0 1 2 0
T ₃	4 1 1 0	6 3 3 2		2 2 2 2
T ₄	2 2 2 1	5 6 9 5		3 4 5 4

a. Avail
A B C D

$$\begin{array}{r}
 T_2 \quad 2 \ 2 \ 2 \ 4 \\
 + \quad 2 \ 4 \ 1 \ 3 \\
 \hline
 4 \ 6 \ 3 \ 7 \\
 T_0 \quad + \quad 3 \ 1 \ 4 \ 1 \\
 \hline
 7 \ 7 \ 7 \ 8 \\
 T_1 \quad + \quad 2 \ 1 \ 0 \ 2 \\
 \hline
 9 \ 8 \ 7 \ 10 \\
 T_3 \quad + \quad 4 \ 1 \ 1 \ 0 \\
 \hline
 13 \ 9 \ 8 \ 10 \\
 T_4 \quad + \quad 2 \ 2 \ 2 \ 1 \\
 \hline
 15 \ 11 \ 10 \ 11
 \end{array}$$

$\langle T_2, T_0, T_1, T_3, T_4 \rangle$

b. T₄ Allocation: (4, 4, 4, 5); Need: (1, 2, 3, 0)

Avail
A B C D

$$\begin{array}{r}
 0 \ 0 \ 0 \ 0
 \end{array}$$

不能给予 T₄, 会不安全

c. T₂ Allocation: (2, 5, 2, 3); Need: (0, 0, 1, 0)

Avail
A B C D

$$\begin{array}{r}
 T_2 \quad 2 \ 1 \ 1 \ 4 \\
 + \quad 2 \ 5 \ 2 \ 3 \\
 \hline
 4 \ 6 \ 3 \ 7
 \end{array}$$

$\langle T_2, T_0, T_1, T_3, T_4 \rangle$
可以, 是安全的

d. T₃ Allocation: (6, 3, 2, 2); Need: (0, 0, 1, 0)

Avail
A B C D

$$\begin{array}{r}
 T_3 \quad 0 \ 0 \ 1 \ 2 \\
 + \quad 6 \ 3 \ 2 \ 2 \\
 \hline
 6 \ 3 \ 3 \ 4 \\
 T_0 \quad 3 \ 1 \ 4 \ 1 \\
 + \quad 9 \ 4 \ 7 \ 5 \\
 \hline
 12 \ 8 \ 10 \ 9 \\
 T_1 \quad 2 \ 1 \ 0 \ 2 \\
 + \quad 11 \ 5 \ 7 \ 7 \\
 \hline
 13 \ 9 \ 8 \ 10 \\
 T_2 \quad 2 \ 4 \ 1 \ 3 \\
 + \quad 2 \ 2 \ 2 \ 1 \\
 \hline
 15 \ 11 \ 10 \ 11
 \end{array}$$

$\langle T_3, T_0, T_1, T_2, T_4 \rangle$
可以是安全的