semaphore S=1;//互斥信号量

semaphore empty=n;//盘子的空闲

semaphore apples=0;//苹果信号量

semaphore oranges=0;//橘子信号量

void father()

{

while(true)

{

P(empty);

P(S);

father puts an fruits;

V(S);

if(fruits = orange)

V(oranges);

father puts an orange;

else

v(apples)

father puts an apples;

}

}

void son()

{

while(true)

{

P(apples);

P(S);

Take one apple;

V(S);

V(empty);

son eat a apple;

}

}

void daughter()

{

while(true)

{

P(oranges);

P(S);

Take one orange;

V(S);

V(empty);

daughter eat a orange;

}

}

void main(){

cobegin

father();son();daughter();//并发执行进程

coend

}