1° l, r 初值

2° mid = l + r

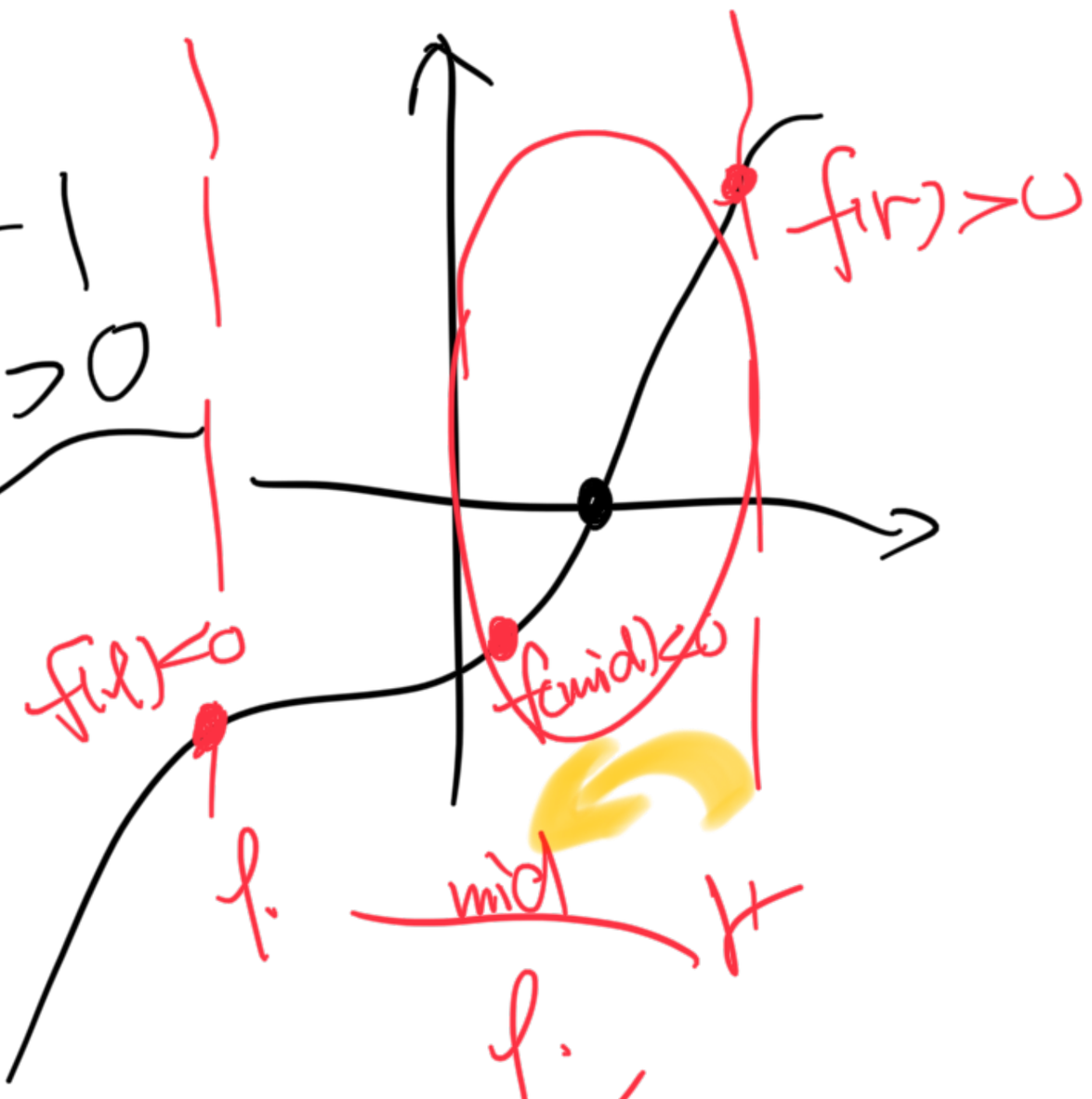
3° f(mid)

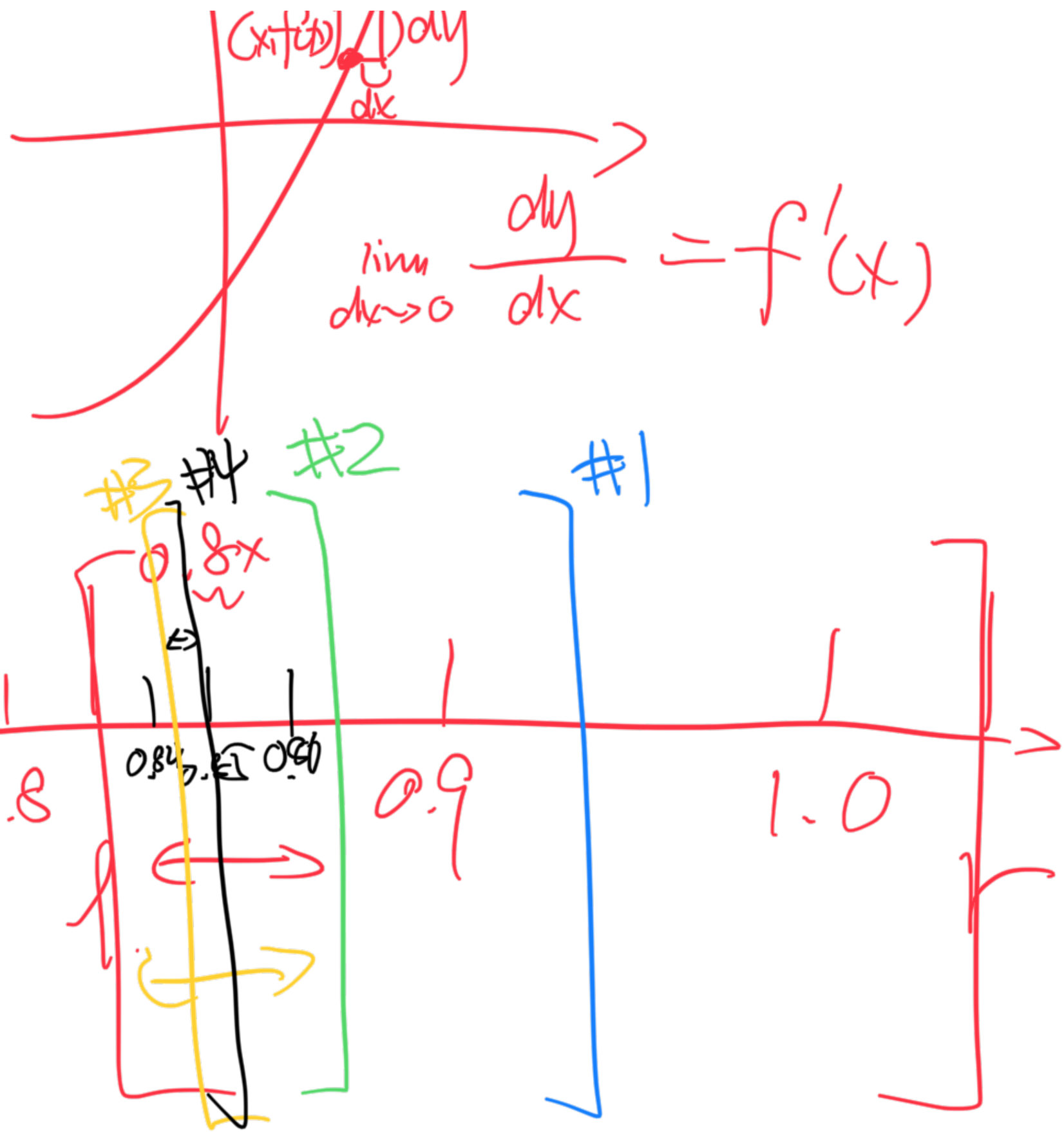
3.1° if f(mid) > 0 [l, r] ⇒ [l, mid)

3.2° if f(mid) < 0 [l, r] ⇒ [mid, r]

$f(x) = x^3 + x - 1$

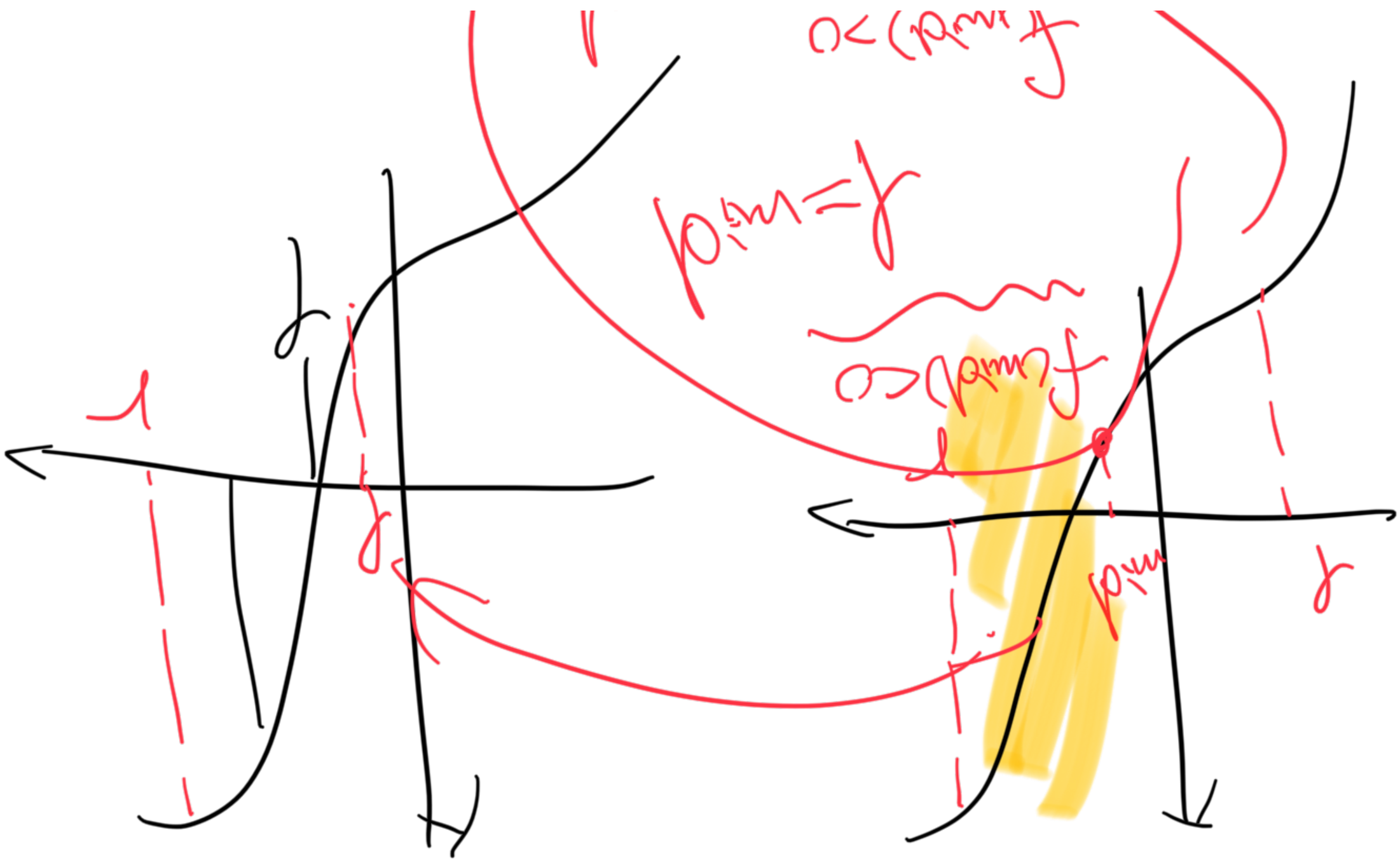
$f'(x) = 2x^2 + 1 > 0$





$r - f < 0.1$

$r_0 - f_0 = 3$



r=mid

0.84

r-l<0.01

while(r-l>eps){

mid=(l+r)/2;

if(f(mid)>0)

r=mid

else l=mid

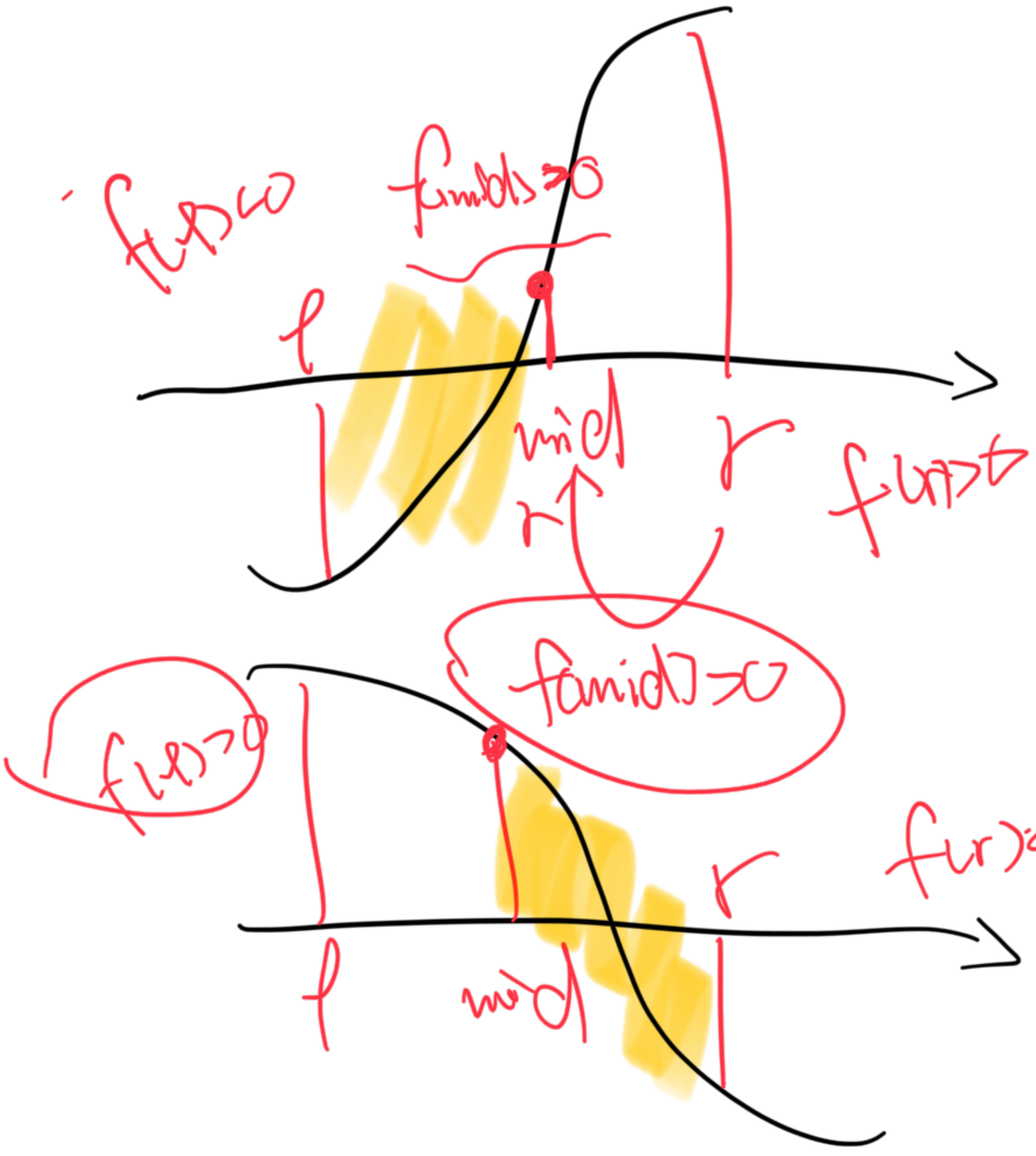
}

① 很难相等

② 跳出条件

eps 精度

for(int i=1;i<=30;i++)


f(l)<0
f(mid)>=0
l
mid
r
f(r)>0
f(mid)·f(l)<0
f(l)>0
f(mid)>0
r
f(r)<0
l
mid
f(mid)·f(l)>0