

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time: b(0, 5), a(1, 3), e(3, 8), c(5, 6), d(6, 8)

Finish time a(1, 3), b(0,5), c(5,6), d(6,8), e(3,8)



$P(d)=c.$

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



$P(d)=c$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



$P(d)=c$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



$P(d)=c$ ,  $p(c)=b$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0,5)$ ,  $c(5,6)$ ,  $d(6,8)$ ,  $e(3,8)$



$P(d)=c$ ,  $p(c)=b$ .



# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time: b(0, 5), a(1, 3), e(3, 8), c(5, 6), d(6, 8)

Finish time a(1, 3), b(0,5), c(5,6), d(6,8), e(3,8)



$P(d)=c$ ,  $p(c)=b$ ,  $p(e)=a$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time:  $b(0, 5)$ ,  $a(1, 3)$ ,  $e(3, 8)$ ,  $c(5, 6)$ ,  $d(6, 8)$

Finish time  $a(1, 3)$ ,  $b(0, 5)$ ,  $c(5, 6)$ ,  $d(6, 8)$ ,  $e(3, 8)$



$P(d)=c$ ,  $p(c)=b$ ,  $p(e)=a$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time: b(0, 5), a(1, 3), e(3, 8), c(5, 6), d(6, 8)

Finish time a(1, 3), b(0,5), c(5,6), d(6,8), e(3,8)



$P(d)=c$ ,  $p(c)=b$ ,  $p(e)=a$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time: b(0, 5), a(1, 3), e(3, 8), c(5, 6), d(6, 8)

Finish time a(1, 3), b(0,5), c(5,6), d(6,8), e(3,8)



$P(d)=c$ ,  $p(c)=b$ ,  $p(e)=a$ ,  $p(a)=0$ .

# Computing $p()$ 's in $O(n)$ time

$P()$ 's can be computed in  $O(n)$  time using two sorted lists, one sorted by finish time and the other sorted by start time.



Start time: b(0, 5), a(1, 3), e(3, 8), c(5, 6), d(6, 8)

Finish time a(1, 3), b(0,5), c(5,6), d(6,8), e(3,8)



$P(d)=c$ ,  $p(c)=b$ ,  $p(e)=a$ ,  $p(a)=0$ ,  $p(b)=0$ .