

## R5.1

a)  $n=1$   
 $k=2$   
 $r=1$   
If  $(k < n)$  { $r = k;$ }

ALL VARIABLES STAY THE SAME!

b)  $n=1$   
 $k=2$   
 $r=?$   
If  $(n < k)$   $r=k$

$r = 2$

c)  $n=1$   
 $k=2$   
 $r=2$

$k=1$

d)  $n=1$   
 $k=2$   
 $r=3$

$k=6$

R5.11

### TEST1

Start 1 = 10

Start 2 = 11

End 1 = 12

End 2 = 13

If  $10 > 11$

$s = 10$

Else,

$s = 11 \Rightarrow s = 11$

If  $12 < 13$

$e = 12 \Rightarrow e = 12$

If  $11 < 12$

The appointment overlaps.

### Test 2

Start 1 = 10

Start 2 = 12

End 1 = 11

End 2 = 13

If  $10 > 12$

$s = 10$

Else,

$s = 12 \Rightarrow s = 12$

If  $11 < 13$

$e = 11 \Rightarrow e = 11$

If  $12 < 11$

The appointment overlaps

Else,

The appointments don't overlap.

R5.15

### Test Case 1

Start 1 = 18

Start 2 = 22

End 1 = 20

End 2 = 24

If  $18 > 22$

$s = 18$

Else

$s = 22 \Rightarrow s = 22$

If  $20 < 24$

$e = 20 \Rightarrow e = 20$

If  $22 < 20$

The appointments overlap

Else,

The appointments don't overlap

### Test Case 2

Start 1 = 9

Start 2 = 10

End 1 = 10

End 2 = 11

If  $9 > 10$

$s = 9$

Else

$s = 10 \Rightarrow s = 10$

If  $10 < 11$

$e = 10 \Rightarrow e = 10$

If  $s < e$  ...

You will get an error message because  $s = e$  !!!

### Test Case 3

Start 1 = 5

Start 2 = 4

End 1 = 7

End 2 = 6

If  $5 > 4$

$s = 5 \Rightarrow s = 5$

If  $7 < 6$

$e = 7$

Else

$e = 6 \Rightarrow e = 6$

If  $5 < 6$

The appointment overlaps.