Putting it All Together

- Lets convert the following program to SSA form:

$i = 1$

$j = 1$

$k = 0$

while $k < 100$

   if $j < 20$

      $j = i$

      $k = k + 1$

   else

      $j = k$

      $k = k + 2$

return j


```
L0:  i = 1
  1:  j = 1
  2:  k = 0
```

```
L3:  if k < 100 goto L10
```

```
L4:  if j < 20 goto L7
```

```
L10:  ret j
```

```
L5:  j = i
  6:  k = k + 1
```

```
L7:  j = k
  8:  k = k + 2
```

```
L9:  goto L3
```

What is the dominator tree of this CFG?