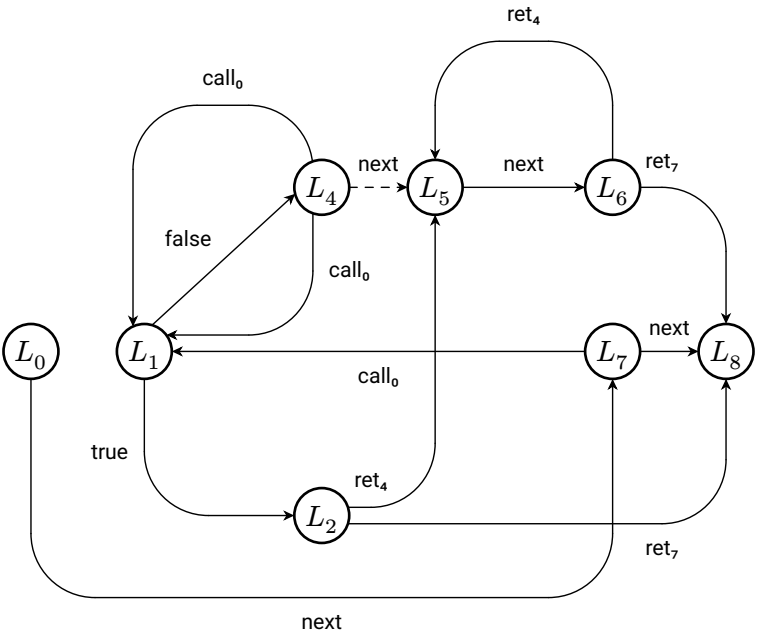
Procedural Program: Statics

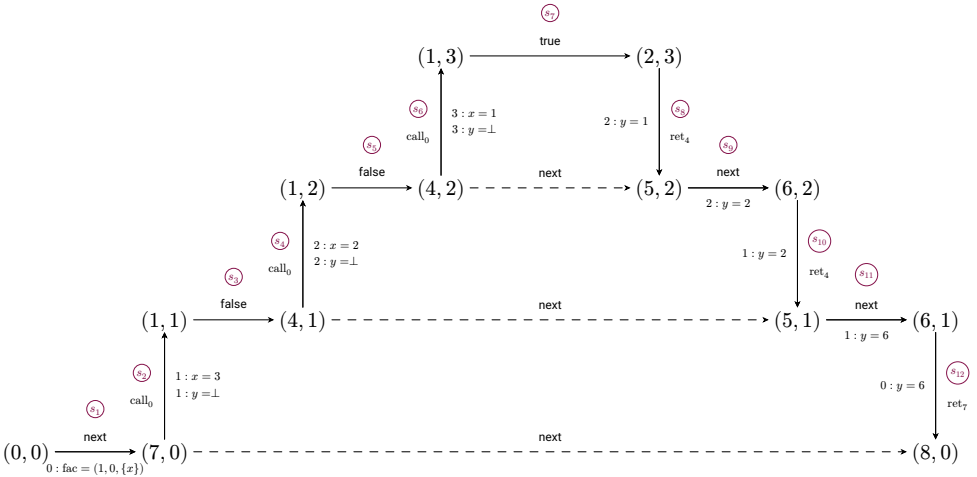
```
0  def fac(x):
1    if x == 1:
2      return 1
3    else:
4      y = fac(x-1)
5      y *= x
6      return y
7  a = fac(3)
8
```

Loc	next	true	false	$call_0$	ret_4	ret_7	err
0	7	-	-	-	-	-	-
1	-	2	4	-	-	-	8
2	-	-	-	-	{5}	{8}	8
3	-	-	-	-	-	-	-
4	5	-	-	{1}	-	-	8
5	6	-	-	-	-	-	8
6	-	-	-	-	{5}	{8}	8
7	8	-	-	{1}	-	-	8
8	-	-	-	-	-	-	-

Procedural Program: Statics (ii)



Procedural Program: Dynamics



Procedural Program: Dynamics (ii)

$$e_0 = \begin{cases} f \mapsto (1, 0, \{x\}) & s_1 \\ y \mapsto 6 & s_{12} \end{cases}$$

$$e_1 = \begin{cases} x \mapsto 3 & s_2 \\ \cancel{y \mapsto \bot} & s_2 \\ \cancel{y \mapsto 2} & s_{10} \\ y \mapsto 6 & s_{11} \end{cases}$$

$$e_2 = \begin{cases} x \mapsto 2 & s_2 \\ \cancel{y \mapsto \bot} & s_2 \\ \cancel{y \mapsto 1} & s_{10} \\ y \mapsto 2 & s_{11} \end{cases}$$

$$e_3 = \begin{cases} x \mapsto 1 & s_2 \\ \cancel{y \mapsto \bot} & s_2 \end{cases}$$