

```

main() {      p() {                                q() {
n00 ENTRYn05 ENTRY                                n11 ENTRY
n01 c1 : p() n06 a * b                                n13 a = 5 n15 b = 6
n21 ret p() n07 c3 : q() n08 c4 : q() n16 EXIT
n02 c * d      n27 ret q() n28 ret q() }
n03 c2 : q() n09 c = 5
n23 ret q() n10 EXIT
n04 EXIT      }
}

-i n00n01 -i n21n02 -i n02n03 -i n23n04
-i n05n06 -i n06n07 -i n06n08 -i n27n09 -i n28n09 -i n09n10
-i n11n13 -i n11n15 -i n13n16 -i n15n16
[linestyle=dashed,angleB=90]-i n01n05
[linestyle=dashed,angleB=75]-i n03n11
[linestyle=dashed,angleB=90]-i n07n11
[linestyle=dashed,angleB=135]-i n08n11
[linestyle=dashed,angleB=-135]j-n21n10
[linestyle=dashed,angleB=-45]j-n23n16
[linestyle=dashed,angleB=-90]j-n27n16
[linestyle=dashed,angleB=-135]j-n28n16

```

Pgm	gen	kill	IN	OUT
main() {				
ENTRY			$\lambda, 00$	$\lambda, 00$
$c_1 : \text{call } p()$			$\lambda, 00$	$c_1, 00$
$c * d$	$c*d$		$\lambda, 00$	$\lambda, 01$
$c_2 : \text{call } q()$			$\lambda, 01$	$c_2, 01$
EXIT			$\lambda, 01$	—
}				
p() {				
ENTRY			$c_1, 00$	$c_1, 00$
$a * b$	$a*b$		$c_1, 00$	$c_1, 10$
if(...) then			$c_1, 10$	$c_1, 10$
$c_3 : \text{call } q()$			$c_1, 10$	$c_1 c_3, 10$
else			—	—
$c_4 : \text{call } q()$			$c_1, 10$	$c_1 c_4, 10$
$c = 5$		$c*d$	$c_1, 00; c_1, 00$	$c_1, 00$
EXIT			$c_1, 00$	$\lambda, 00$
}				
q() {				
ENTRY			$c_1 c_3, 10; c_1 c_4, 10; c_2, 01$	$c_1 c_3, 10; c_1 c_4, 10; c_2, 01$
if(...) then			$c_1 c_3, 10; c_1 c_4, 10; c_2, 01$	$c_1 c_3, 10; c_1 c_4, 10; c_2, 01$
$a = 5$		$a*b$	$c_1 c_3, 10; c_1 c_4, 10; c_2, 01$	$c_1 c_3, 00; c_1 c_4, 00; c_2, 01$
else				
$b = 6$		$a*b$	$c_1 c_3, 10; c_1 c_4, 10; c_2, 01$	$c_1 c_3, 00; c_1 c_4, 00; c_2, 01$
EXIT			$c_1 c_3, 00; c_1 c_4, 00; c_2, 01$	$c_1, 00; c_1, 00; \lambda, 01$
}				

bit1 bit2: bit1 represents availability of  $a*b$ , bit2 of  $c*d$  you can also initialize boundary with  $\perp$  instead of 0. Meet at each point, ignoring call string part will give the availability.