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1  merge_cfg():
2      input: Program P, Label  $\ell_b$ ,  $\ell_1$ ,  $\ell_2$ 
3      output: Program P'
4      let  $r_1 = F(p_{11}, \dots, p_{1n})$  be at  $\ell_1$  in P
5      let  $r_2 = F(p_{21}, \dots, p_{2n})$  be at  $\ell_2$  in P
6      let  $p_1 = \phi(p_{11}, p_{21})$ 
7      ...
8      let  $p_n = \phi(p_{1n}, p_{2n})$ 
9      replace  $\ell_1$  by "goto  $\ell_r$ " in P
10     replace  $\ell_2$  by "goto  $\ell_r$ " in P
11     create " $\ell_r: p_1; \dots; p_n; r = F(p_1, \dots, p_n);$ "
12     create " $\ell_{r+1}: \text{branch equal to } \ell_b$ "
13         targeting such( $\ell_1$ ) and succ( $\ell_2$ )
14     rename every use of  $r_1$  to  $r$  in P
15     rename every use of  $r_2$  to  $r$  in P
16     P' = strictify_program(P)
17     return P'

```