

I will give you a set of facts F1 to F86, facts G1 to G18 and a template for a logical rule. Please generate one single rule to match the template and logically entail the facts G1 to G18 based on facts F1 to F86.

Facts:

F1: $r1(\text{florian}, \text{julia})$.

F2: $r45(\text{julia}, \text{florian})$.

F3: $r1(\text{victoria}, \text{florian})$.

F4: $r45(\text{florian}, \text{victoria})$.

F5: $r1(\text{victoria}, \text{maximilian})$.

F6: $r45(\text{maximilian}, \text{victoria})$.

F7: $r1(\text{victoria}, \text{elena})$.

F8: $r45(\text{elena}, \text{victoria})$.

F9: $r1(\text{emilia}, \text{nora})$.

F10: $r45(\text{nora}, \text{emilia})$.

F11: $r1(\text{jonas}, \text{nora})$.

F12: $r45(\text{nora}, \text{jonas})$.

F13: $r1(\text{dominik}, \text{larissa})$.

F14: $r45(\text{larissa}, \text{dominik})$.

F15: $r1(\text{marie}, \text{larissa})$.

F16: $r45(\text{larissa}, \text{marie})$.

F17: $r1(\text{larissa}, \text{valentin})$.

F18: $r45(\text{valentin}, \text{larissa})$.

F19: $r1(\text{maximilian}, \text{moritz})$.

F20: $r45(\text{moritz}, \text{maximilian})$.

F21: $r1(\text{luis}, \text{valentin})$.

F22: $r45(\text{valentin}, \text{luis})$.

F23: $r1(\text{vanessa}, \text{paul})$.

F24: $r45(\text{paul}, \text{vanessa})$.

F25: $r1(\text{emil}, \text{paul})$.

F26: $r45(\text{paul}, \text{emil})$.

F27: $r1(\text{adrian}, \text{florian})$.

F28: $r45(\text{florian}, \text{adrian})$.

F29: $r1(\text{adrian}, \text{maximilian})$.

F30: $r45(\text{maximilian}, \text{adrian})$.

F31: $r1(\text{adrian}, \text{elena})$.

F32: $r_{45}(\text{elena}, \text{adrian})$.
F33: $r_1(\text{ella}, \text{moritz})$.
F34: $r_{45}(\text{moritz}, \text{ella})$.
F35: $r_1(\text{paula}, \text{julia})$.
F36: $r_{45}(\text{julia}, \text{paula})$.
F37: $r_1(\text{nora}, \text{victoria})$.
F38: $r_{45}(\text{victoria}, \text{nora})$.
F39: $r_1(\text{nora}, \text{dominik})$.
F40: $r_{45}(\text{dominik}, \text{nora})$.
F41: $r_1(\text{nora}, \text{vanessa})$.
F42: $r_{45}(\text{vanessa}, \text{nora})$.
F43: $r_1(\text{nora}, \text{magdalena})$.
F44: $r_{45}(\text{magdalena}, \text{nora})$.
F45: $r_1(\text{elias}, \text{victoria})$.
F46: $r_{45}(\text{victoria}, \text{elias})$.
F47: $r_1(\text{elias}, \text{dominik})$.
F48: $r_{45}(\text{dominik}, \text{elias})$.
F49: $r_1(\text{elias}, \text{vanessa})$.
F50: $r_{45}(\text{vanessa}, \text{elias})$.
F51: $r_1(\text{elias}, \text{magdalena})$.
F52: $r_{45}(\text{magdalena}, \text{elias})$.
F53: $r_1(\text{selina}, \text{elias})$.
F54: $r_{45}(\text{elias}, \text{selina})$.
F55: $r_1(\text{jonathan}, \text{elias})$.
F56: $r_{45}(\text{elias}, \text{jonathan})$.
F57: $r_1(\text{valentina}, \text{jonathan})$.
F58: $r_{45}(\text{jonathan}, \text{valentina})$.
F59: $r_1(\text{felix}, \text{jonathan})$.
F60: $r_{45}(\text{jonathan}, \text{felix})$.
F61: $r_{43}(\text{florian})$.
F62: $r_{44}(\text{victoria})$.
F63: $r_{43}(\text{adrian})$.
F64: $r_{44}(\text{nora})$.
F65: $r_{43}(\text{elias})$.
F66: $r_{44}(\text{selina})$.

F67: $r_{43}(\text{jonathan})$.
 F68: $r_{44}(\text{valentina})$.
 F69: $r_{43}(\text{felix})$.
 F70: $r_{44}(\text{magdalena})$.
 F71: $r_{44}(\text{emilia})$.
 F72: $r_{43}(\text{jonas})$.
 F73: $r_{43}(\text{dominik})$.
 F74: $r_{44}(\text{marie})$.
 F75: $r_{44}(\text{larissa})$.
 F76: $r_{43}(\text{maximilian})$.
 F77: $r_{43}(\text{luis})$.
 F78: $r_{43}(\text{valentin})$.
 F79: $r_{44}(\text{vanessa})$.
 F80: $r_{43}(\text{emil})$.
 F81: $r_{43}(\text{paul})$.
 F82: $r_{44}(\text{elena})$.
 F83: $r_{44}(\text{ella})$.
 F84: $r_{43}(\text{moritz})$.
 F85: $r_{44}(\text{paula})$.
 F86: $r_{44}(\text{julia})$.
 G1: $r_{24}(\text{victoria, emilia})$
 G2: $r_{24}(\text{victoria, jonas})$
 G3: $r_{24}(\text{victoria, selina})$
 G4: $r_{24}(\text{victoria, jonathan})$
 G5: $r_{24}(\text{larissa, nora})$
 G6: $r_{24}(\text{larissa, elias})$
 G7: $r_{24}(\text{vanessa, emilia})$
 G8: $r_{24}(\text{vanessa, jonas})$
 G9: $r_{24}(\text{vanessa, selina})$
 G10: $r_{24}(\text{vanessa, jonathan})$
 G11: $r_{24}(\text{elena, nora})$
 G12: $r_{24}(\text{elena, elias})$
 G13: $r_{24}(\text{julia, victoria})$
 G14: $r_{24}(\text{julia, adrian})$
 G15: $r_{24}(\text{magdalena, emilia})$

G16: $r24(\text{magdalena}, \text{jonas})$

G17: $r24(\text{magdalena}, \text{selina})$

G18: $r24(\text{magdalena}, \text{jonathan})$

Template: $\forall A, B, C : \#\#(A, B) \wedge \#\#(B, C) \wedge ++(A) \rightarrow r24(A, C)$

Note that the symbol ‘ $\#\#$ ’ in the template should be filled with either ‘r1’ or ‘r45’, while the symbol ‘ $++$ ’ should be filled with either ‘r43’ or ‘r44’. After filling in the template, the generated rule is: