

Z€1ruuz†z, €=1†, ~v1Xc^†1v€^~v...r†vu1s(E1Sv)wz, ...v
r€u1e†rz19BJJB: †tr€1€, †1sv1, s†rz€vu1s(E1rff){Ez€x
†yv1~v†y, u1f..., f, †vu1s(E1Tyv€1r€u1dyzv^19BJJG: ?
eyv1, s{vt††1, w1†yzt†1†yvtz†1z†1uv%w}, f1r€
rff..., rty1w, ...1†yv1t, €tvf†1, w1~, u^}r...1uv†zx€1, €
Xc^†?1W^...†yv...~, ...v=1†yv1tyr...rt†v...z††zt1, w1†yv
Xc^†f..., f, †vu1s(E1Sv)wz, ...v1r€u1e†rz19BJJB: 1Sž}}
sv1r€r}{E' vu1†, 1uv%w}, fvu1r††(E††v~r†zt1rff..., rty
†, 1t...vr†v1†yv1|z€u†1, w1Xc^†?

C?1\z€v~r†zt†

R€1^€z, ^v1tr€, €ztr}1x...rfy19e†rz=1BJII: 1tr€
sv1, s†rz€vu1†y..., ^xy1vuxv>...vt, €wzx^...r†z, €1, w
†yv1x...rfy1...vf...v†v€†r†z, €1, w1r1~vtyr€z†~1†^ty
†yr†1r}}1vuxv†1}{Ez€x1, €1r1†yz€>vuxvu1fr†y
†...rtvu1w..., ~1†yv1..., †1†, 1r€E1, †yv...1%w...†v<1yr%w
uzwww...v€†1vuxv1}rsv}†?1W..., ~1†yv1tr€, €ztr}
x...rfy1, w1r1~vtyr€z†~1r1...v%w, }^†v>{, z€†>, €}{E
†fr€€z€x1†...v1tr€1sv1, s†rz€vu1s(E1...v~, %z€x1r}}
†yv1yvr%€1vuxv†?1Vrty1†yz€>vuxvu1fr†y1, ...xz>
€r†z€x1w..., ~1†yv1sr†v1r€u1v€uz€x1r†1r1}}vrw
9Tyr...†...r€u1r€u1^v}}v...r€€=1BJJD: 1...vf...v†v€††
r€1, fv€†}, , f†tyr€z€19^JT: ?R~, €x†tyv†v1, fv€†}, , f
tyr€z€†=1†yv1, €v1††r...††1w..., ~1†yv1sr†v1r€u1v€u†
r††yv1, ^†f^††z€| †z†1uvwz€vu1†††yv1v, ^z%r}v€†
, fv€†}, , f†tyr€z€19V^JT: 19e†rz=1BJII: ?1Vrty1}z€|
z€1†yv1V^JT1z†1...vw...vu1†, 1r†1r1f...z~r...E1}z€|=
Sžy}v1r}}1, †yv...1}z€|†1z€1†yv1~vtyr€z†~1r...v
tr}}vu1†vt, €ur...E1}z€|†?1_, †v1†yr†1†yv1}r††
}z€| †z€1V^JT=†r}}vu1v€u1vwvt†, ...=†z††r†f...z~r...E
}z€|1Sžy}v1†yv1}r††1}z€|†1z€1, †yv...1^JT†1r...v
†vt, €ur...E1}z€|†?1R††vt, €ur...E1}z€|1{†z†1†rzu1†,
sv1tr...zvu1s(E1r1f...z~r...E1}z€|1z1zw1z†1z†
t, €€vt†vu1s(E1f...z~r...E1}z€|1z1Sžy1r1†yz€1vuxv
z€1†yv1tr€, €ztr}1x...rfy?1eyv1...v%w, }^†v1{, z€†
†yr†1t, €€vt††1†S, 1f...z~r...E1}z€|†1z†1tr}}vu1r
f...z~r...E1{, z€†1Sžy}v1†yv1...v%w, }^†v1{, z€†1†yr†
t, €€vt††1, €v1f...z~r...E1}z€|1r€u1, €v1†vt, €ur...E
}z€|1z†1r1†vt, €ur...E1{, z€†?

]v†1W1r€u1b1sv1†yv1r€x^}r...1uz†f}rtv~v€†
%wt†, ...†1r††, †zr†vu1Sžy1†yv1rt††^r†, ...>†frtv
r€u1{, z€†>†frtv?1eyv1%wt†, ...†1r†1rt†^r†, ...>
†frtv1r€u1{, z€†>†frtv1tr€1sv1uv...z%wu1s(E1^†z€x
w^€ur~v€†r}1tz...t^z†1†yv, ...E1r€u1t, r<zr}
t, €uz†z, €†19Tyr€x1r€u1e†rz=1BJIJ: 1r€u1sv
S...z††v€1r†

W1N1R^1b1 9B:
Sžy...vR†z††yv1††...^††^~v†~r†...z<19Tyr€x1r€u1e†rz=
BJJA: ?

Z€1†yv1††...^††^~v1~r†...z<1...vf...v†v€††1r€1^e]}
W..., ~1V, ^9B: =1z†1z†1t}vr...1†yr†1†yv1w, ...~1, w1R
uv†t...zsv1†yv1~vtyr€ztr}1t, ^f}z€x1, w1†yv1Xc^=
z?v?=1Sžy...v1†yv1z€f^†1rt†^r†, ...†1r...v1}, tr†vu

r€u1y, S††yv1z€f^†1†, ..., ^v†1r...v1†...r€†~z††vu1†,
%r...z, ^†1{, z€††1, w1†yv1V^JT?

r?1Uz†{, z€†vu1^€z††

R1Xc^1tr€1sv1uv†, ~f, †vu1z€†, 1%r...z, ^†††s>
x...rfy†1rtt, ...uz€x1†, 1^e]††s(E1†yv1f...z~r...E1}z€|†?
S€1...vr...r€xz€x1t, r<zr}1}z€|†=1r1f†v^u, >
z†, ~, ...fyzt1x...rfy19e†rz1r€u1}z€=1BJIJ: 1, w1†yv
^e]††tr€1sv1, s†rz€vu?1z†1r}†, 1tr€1sv1†vw€1†yr†
r€1^€z†1z†1t, €€vt†vu1†, 1z†1ru{rtv€††1^€z†1s(E
tyr...z€x1r1t, ~~, €1}z€|1r†1r1t^†1}z€|19e†rz1r€u
}z€=1BJIJ: ?1eyv1^€z††1t, ...v†f, €uz€x1†, 1†yv
†r~v1f...z~r...E1}z€|†1~^††1sv}, €x1†, 1uzwww...v€†
^e]††r€u1tr€1sv1†vfr...r†vu1s(E1^†z€x1†yv1f...z~r...E
}z€|1r†1†yv1t^†1}z€|?1W, ...1†yv1tr†v1, w1^€z††=
†yv(E1r...v1tr}}vu1r†1uz†{, z€†vu1^€z††?1^€1, †yv...
S, ...ut=1r1uz†{, z€†vu1^€z††z€1r1Xc^†sv}, €x1†, 1, €v
r€u1, €}{E1, €v1^e]}?1z€1ruuz†z, €=1†yv1^e]1, €}{E
t, €†z††1†yv1uz†{, z€†vu1^€z††1z†1uvwz€vu1r†1r
uz†{, z€†vu1^e]}?

Z€1†yv1uz†{, z€†vu1^€z††††v...zv†1, w1r€1^e]=1†yv
t^†1}z€|†1r...v1tr}}vu1t, €€vt†z€x1}z€|†1r€u1r
f...v†vuz€x1uz†{, z€†vu1^€z††††v†1z††1f, ††>
t, €€vt†z€x1}z€|1†, 1t, €€vt†††yv1f...v>t, €€vt†z€x
}z€|1, w1z††††††††vuz€x1uz†{, z€†vu1^€z††?1z€
ruuz†z, €=1†yv1f...v>t, €€vt†z€x1}z€|1, w1r1^€z††z†
t, €†zuv...vu1†yv1}, tr}1z€f^†1†, 1†yv1^€z†1Sžy}v
†yv1f, ††>t, €€vt†z€x1}z€|1z†1t, €†zuv...vu1†yv
, tr}1, ^†f^†††, 1†yv1^€z†?1_, †v1†yr†=1†yv1z€f^†
r€u1†...r€†~z††z, €1^€z††1r...v1r}}1uz†{, z€†vu
^€z††?1eyv1†(Eztr}1uz†{, z€†vu1^e]}z†1†ty, S€1z†
Wzx?1B=1Sžy...v1r1z€f^†1^€z††z†1t, €€vt†vu1Sžy
|>B††...r€†~z††z, €1^€z††19Tyv€1r€u1dyz^v=BJJG: ?
eyv1t, €€vt†z€x1}z€|†1r...v1€^~sv...vu1r†1{=1r€u
{<B=1.....?=1{<€=1r€u1†yv1f...z~r...E1}z€|†1r...v
€^~sv...vu1r†1z1r€u1z<B=1.....=1z<€>B=1w, ...1†yv
z€f^†1^€z†1r€u1†...r€†~z††z, €1^€z††=1...v†fv†>
†z%w}{E?

eyv1Xc^1Sžy1r}}1uz†{, z€†vu1^€z††1r...v1tr}}vu
uz†{, z€†vu1Xc^†?1W, ...1†yv1tr†v1, w1Xc^†=1†yv
...v†^}†r€†1{, z€†††, ..., ^v1Sžy}}1sv1rwwvt†vu1s(E†yv
rt†^r†, ...1†, ..., ^v†1Sžyzy1r...v1†...r€†~z††vu1s(E
uzwww...v€†1uz†{, z€†vu1^€z††††v...zv†1rtt, ...uz€x
†, 1uz†{, z€†vu1^e]}†?

s?1[, z€†vu1^€z††

W, ...†yv1Xc^†ty, Sž€1Wzx?1C9r: =1s(E1.vr...r€xz€x
†yv1t, r<zr}1}z€|†=1f†v^u, >z†, ~, ...fyzt1x...rfy†
, w1^e]†††s>x...rfy1tr€1sv1, s†rz€vu1r€u1ty, Sž1z€
Wzx?1C19s: ?1W..., ~1Wzx?1C19s: =1z†1tr€1sv1†vw€1†yv
†...r€†~z††z, €1^€z†1M1B=1E=1C01z†1fr...†1, w1†yv
C>u, w1€, €>w...rt†z, €r†vu1X†1M1B=1F=1G=1E=1C=1H=
1O?1Wzx^...v1C9s: 1ty, S††yv1x...rfy1s(E1{, z€z€x1†yv
t, ~~, €1}z€|†1r~, €x1†yv1^e]†††s>x...rfy†?1eyv
†, ..., ^v1%wt†, ...†1r†1{, z€†>†frtv1r€u1rt†^r†, ...>

ftrtv1w, ...1tyv1v<r-f>v1Xc^1ty, Š€1z€1Wzx?1C9r:
r...v1...v}r†vu1sE

$$\begin{bmatrix} \tau_{1,0} \\ \tau_{2,1} \\ \tau_{3,2} \end{bmatrix} = \begin{bmatrix} 1 & 1 & 1 \\ 0 & e_{2,4} & e_{2,4}e_{4,6}e_{6,5} + e_{8,7}(1 - e_{4,6}e_{6,5}) \\ 0 & 0 & e_{3,8}e_{8,7}(1 - e_{4,6}e_{6,5}) \end{bmatrix} \begin{bmatrix} \xi_1 \\ \xi_4 \\ \xi_5 \end{bmatrix} \quad 9C:$$

Šyv...v1τ_{B=A}=1τ_{C=B}1r€u1τ_{D=C}1r...v1tyv1{, z€†1†, ..., ^vt=
ξ_B=1ξ_E1r€u1ξ_F1r...v1tyv1†, ..., ^vt1rff}zv1r†1z€f^†
}z€|†1B=1E1r€u1F1...vtfv†z%w}E=1r€u
e_{i,j} = ±N_i/N_j z†1tyv1xvr...1.r†z, w, ...1tyv1xvr...1frz...
~, ^€†vu1, €1}z€|†1z1r€u1{?

W, ...-1V, ?9C: =1z†1tr€1sv1†vv€1†yr†1xvr...1.r†z,
v_{C=E}1rffvr...†z€†Š, †, }^-€†1, w††...^††^...v1r†z?<
Yv€tv=1tyv1†vt, €u1€, €>' v..., 1v}v-v€††1, w1tyv
†vt, €u1r€u1tyz...u1†, }^-€1, w1tyv1††...^††^...v
-r†...z<1ty, Š€1z€1V, ?19C: 1r...v1†, ^f}vu1r€u1r...v
tr}}vu1{, z€†vu1}v-v€††1, w†††...^††^...v1r†z?<
T, ...v†f, €uz€x}E=1tyv1C>u, w1€, €>w...rt†z, €†vu
X\1†v€†, †vu1s€1r1urtyvu1...vt†r€x}v1z€1Wzx?1C
9t: =1z†1tr}}vu1r1{, z€†vu1^€z†?

Xc^†1Šyzyt, €†z††1Šz†y1r†1}vr††1, €v1{, z€†vu
^€z†1r...v1tr}}vu1{, z€†vu1Xc^†1?1_, †v1†yr†1†y
††...^††^...v1-r†...z<1, w1r1{, z€†vu1Xc^†1yr%w1†Š,
€, €>' v..., 1v}v-v€††1r†1tyv1†r~v1..., Š1r†1{, z€†vu
v}v-v€††?

D?1^, u^}r...1uv†z€x

]v†1}z€|1<1sv1†yv1f...v>t, €€vt†z€x1}z€|1r€u
}z€|1E1sv1†yv1f, ††>t, €€vt†z€x1}z€|?1tyv
r€x^}r...1uz†f}rtv-v€†1sv†Švv€1†yv1}, tr}1z€f^†
<1r€u1f...z-r...E1}z€|1f=1, <_f=1tr€1sv1...vf...vtv€†vu
r†1r1w^€††z, €1, w1tyv1r€x^}r...1uz†f}rtv-v€†
sv†Švv€1}, tr}1, ^†f^†1E1r€u1f...z-r...E1}z€|1f=1, <_f=
rt

$$q_{x,p} = \frac{e_{1,x}}{(1 - e_{p,2}e_{2,y})} q_{y,p} = g_{(TU-7)} q_{y,p} \quad 9D:$$

Šyv...v1x_{9ef>H}: ††1tyv1w, ...Šr...u1xkr€†††, †zr†vuŠz†y
9ef>H: 19Tyv€=1BJJH: ?

dz€tv19ef>H: ††1r1wz}ffrs}v†^€z†=1s€1ty, , †z€x
}z€|1E1r†1†yv1}, tr}1z€f^†1r€u1}z€|1<1r†1†yv
, tr}1, ^†f^†=1w, ...-1V, ?9D?J: =1r€x^}r...1uz†>
f}rtv-v€††1, <_f=1r€u1, <_f=1tr€1sv1...v}r†vu1rt

$$q_{x,p} = \frac{(1 - e_{p,2}e_{2,y})}{e_{1,x}} q_{y,p} = \frac{1}{g_{(TU-7)}} q_{y,p} \quad 9E:$$

S€1r††z€x€x1†yv1f...z-r...E1}z€|1r†1†yv1x..., ^€u
}z€|1|z€v-r†z†1svyr%z, ...†1, w1z€f^†1r€u
†...r€†-z††z, €1^€z††1tr€1sv1††^uzvu1z€1r†z-z}r...
Šr€1r†1xvr...1†...rz€†?1W, ...1†y, †v1^€z††1z€1Šyzyt
†yv1r<v†1, w1€, €v1, w1tyv1xvr...††-, %w1.v}r†z%w1†y
f...z-r...E1}z€|1Šyzyt†yv1f...z-r...E1}z€|1z†1r††^~vu
wz<vu=1r...v1tr}}vu1, ...uz€r...E1^€z††19^††: ?1W, ...
†y, †v1^€z††1z€1Šyzyt†yv1r<z†1, w1, €v1, ...1-, ...v
xvr...††-, %w1.v}r†z%w1†, †yv1f...z-r...E1}z€|1Šyzyt

†yv1f...z-r...E1}z€|1z†1r††^~vu1wz<vu=1r...v1tr}}vu
f}v€r...E1^€z††19af†: ?

R€†e]Šyzyt, ~f, †vu1, €}E1s€1sr†z††^€z††1yr%w
Šz†y1†yv1†z~f}v††1|z€v-r†z†1††...^††^...v1r€u1z†
tr}}vu1†yv1sr†z†1^e]?1eyv1†v, ^v€tv1, w1^€z†
r...r€xv-v€†1w, ...1r1sr†z†1€>{, z€†1^e]1tr€1sv
v<f...v††vu1rt

l9zf>B: _B=19ef>B: _C=19ef>B: _D=1...=19ef>B: _En
Šyv...v1tyv1†^s†t...z†1.vf...vtv€††1†yv1}, tr†z, €1, w
†yv1^€z†1z€1†yv1†v, ^v€tv?

R€1^e]1Šyzyt1z†1†, ~f, †vu1s€1r†1}vr††1, €v
v<†v€uvu†^€z††1†tr}}vu1r€1v<†v€uvu†e]?†v€tv=
r€1v<†v€uvu1^e]1tr€1sv1, s†rz€vu1s€1...vf}rtz€x
r€1s€1sr†z††^€z††1r€1sr†z††e]1s€1r1v<†v€uvu†^€z††
ey..., ^xy1uv†v...-z€v1†yv1€^~sv...1, w1tyv1v<†v€uvu=
z†1Šz}}1sv1†vv€1†yr†1†yv1€^~sv...1, w1ru-z††z}v

v<†v€uvu1^e]†z€t...vr†v1u...r-r†z†r}}E?1Z€
ruuz†z, €=1r€†e]Šyzyt, ~f, †vu1s€1r†1}vr††1, €v
af†z††tr}}vu1r1v<†v€uvu1a^e]Šyzyt1r€1^e]1Šz†y
, €}E1^††1z†1†tr}}vu1r€1^>e]?1Wzx?1D1†y, Š†1†yv
t...vr†z, €1, w1r1†y...vv>, z€†1v<†v€uvu1a>^e]1s€
...vf}rtz€x1†yv1†vt, €u1^€z†1, w1r1sr†z†1†y...vv>
{, z€††e]=19ef>B: =Šz†y1r€1af=19ef>G: ?†yv†^€z†
r...r€xv-v€†1†v, ^v€tv1tr€1sv1}z††vu1rt
l9zf>B: =19ef>G: =19ef>B: n

R1Xc^1Šyzyt1z†1w, ...~vu1s€1, €}E1sr†z†1^e]†
ty, ^}u1sv1uvwz€vu1r†1r1sr†z†1Xc^†1eyv
t, €††...^††z, €1, w1r1sr†z†1Xc^†1tr€1sv1†...vr†vu1rt
†yv1f..., s}v~1, w1ty, , †z€x1sr†z†1^e]††rtt, ...uz€x
†, 1†yv1uv†z...vu1xz%w€1†, €wzx^...†z, €?† €1, †yv...
yr€u=1r1Xc^1Šyzyt1z†1w, ...~vu1s€1r†1}vr††1, €v
v<†v€uvu1^e]1z†1†tr}}vu1r€1v<†v€uvu1Xc^†
V<†v€uvu1Xc^††tr€1sv1, s†rz€vu1s€1...vf}rtz€x1r€1E
sr†z†1^e]1z€1r1sr†z†1Xc^†1Šz†y1r€1v<†v€uvu1^e]?
Yv€tv=1r€1v<†v€uvu1Xc^†1Šz†y1r1xz%w€
t, €wzx^...†z, €1tr€1sv1††††v-r†z†r}}E
v€^~v...r†vu1Šz†y1r€†z†zfr†vu1...v†^††?

W, ...1v<r-f>v1, w1†Š, >u, w1Xc^†1Šz†y1, €v>{, z€†
r€u1†Š, >{, z€††e]††t, €wzx^...†z, €=1-: _B1r€u1-: _C
, w1tyv1^>Xc^††1tr€1yr%w1†yv1w, }, Šz€x
t, ~sz€†z, €†K1l ~: _B=1-: _Cn1N1l C=1Gn1, ...1 E=1En=
Šyv...v1-: _B1r€u1-: _C1r...v1†yv1€^~sv...1, w1}z€|†1, w
, €v>{, z€†1r€u1†Š, >{, z€†1^e]†?1W, ...1†yv1wz...††
t, ~sz€†z, €=1†yv...v1r...v1, €v1†Š, >}z€|1α1^>^e]=
r€u1wz%w†z<>}z€|1†>^e]?1ey^†=†yv...v1r...v1wz%w
†z<>}z€|1^>Xc^†1, w1tyz††t, ~sz€†z, €?1W, ...1†yv
†vt, €u1†, ~sz€†z, €=1†yv...v1r...v1, €v1w, ^...>}z€|1α
^>^e]1r€u1, €v1w, ^...>}z€|1^>^e]?1ey^†=†yv...v1z†
, €v†z<>}z€|1^>Xc^†1, w1tyz††t, ~sz€†z, €?†v€tv=
†yv...v1r...v1†z<†z<>}z€|1^>Xc^†1?1W, ...1†yv1†r†v1, w
a>Xc^†1-: _B1r€u1-: _C1yr%w1†yv1w, }, Šz€x
t, ~sz€†z, €†K1l ~: _B=1-: _Cn1N1l C=1Gn1, ...1 E=1En?
eyv...v1z††z<1r€u1†Š, 1a>Xc^†1w, ...1†yv1†Š,

t, -sz€r†z, €†=1...v†fv†z%w}€?1Yv€tv=1†yv...v1r...v
vzxy†1†z<>}z€|1a>Xc^†?

E?1T...vr†z, €1, w1Xc^††S†zy1r1{, z€†vu1^€z†

dz€†v1†yv1{, z€†vu1^€z†1z†1r1†S, >U`W1X\T=1z†
z†1†}vr...1†yr†1†yv1^€z†1€vvu†1†S, 1}, tr}z€f^††?
Z€1xv€v...r}=1†yv1{, z€††1sv†Sv€1}, tr}1, ^†f^††
r€u1f...z-r...€1}z€|1r...v1r††z€v€u1r†1†yv1†r-v
r...†z†^}r†vu1{, z€†1f, ††>z€†zuv€†1S†zy1†yv
f...z-r...€1}z€|?1Yv€tv=1†yv1}, tr}1, ^†f^††1, w1r
{, z€†vu1^€z†1r†1r†1†yv1f, ††>t, €€vt†z€x1}z€|†
r€u1r...v1t, r<zr}1S†zy1†yv1f...z-r...€1}z€|?
W^€ur-v€†r}1...^}v†1, w1r1X\T1†, 1sv1^†vu1r†1r
{, z€†vu1^€z†1†r€1sv1†v†1r†1w, }}, S†?

cb?1eyv...v1z†1, €v1r€u1, €}€1, €v1f...z-r...€1}z€|?

**cc?1eyv...v1r...v1†S, 1}, tr}1, ^†f^††1r†1r†1†yv
f, ††>t, €€vt†z€x1}z€|†?R†, z€†vu1^€z†††v†
z†1†f, ††>t, €€vt†z€x1}z€|1†, 1t, €€vt†1†yv
f...v>t, €€vt†z€x1}z€|1, w1z††††^††vuz€x
uz†{, z€†vu1^€z†?1eyv1f, ††> t, €€vt†z€x
}z€|†1r...v1t, r<zr}1S†zy1†yv1f...z-r...€1}z€|?**

Y, S†w...=1†yv1}, tr}1z€f^††1, w1r1{, z€†vu1^€z†
-r€1€, †1€vtv††r...€1r†1r†1†yv1f...v>t, €€vt†z€x
}z€|1, w1†yv1^€z†1r€u€, ...1sv1r††z€v€u1r†1z€f^†
}z€|?1Yv€tv=1ruuz†z, €r}1w^€ur-v€†r}1...^}v1†r€
sv1†v†1r†t, ...uz€x1†, ††yv1w^€†z, €1, w1†yv1}, tr}
z€f^††1r†1w, }}, S†?

a. Two local input links are pre-connecting links:

eyv1^€z†z††tr}}vu1r1v, ^s}v>†zuv1{, z€†vu1^€z†
9U[f: ?1Ruuz†z, €r}1...^}v1w, ...1r1X\T1†, 1sv1^†vu1r†
r1U[f†1r€1sv1†v†1r†1w, }}, S?

**cDr?1eyv...v1z†1r1frz...1, w1}z€|††S†zy1r...v1t, r<zr}
S†zy1†yv1f...z-r...€1}z€|1s^††€, ††t, r<zr}1S†zy1†yv
f, ††>t, €€vt†z€x1}z€|†?1eyv†v1}z€|†1r...v1†yv
, tr}1z€f^††1, w1†yv1^€z†1r€u1r...v1r††z€v€u1r†1†yv
f...v>t, €€vt†z€x1}z€|†?**

b. One local input is a pre-connecting link and the other is an input link:

eyv1^€z†z††tr}}vu1r1v, ^z%r}v€†1u, ^s}v>†zuv
{, z€†vu1^€z††19U[f: ?1Ruuz†z, €r}1...^}v1w, ...1r
X\T1†, 1sv1^†vu1r†1r1U[f†1r€1sv1†v†1r†1w, }}, S?
**cDs?1eyv...v1z††S, †}z€|††S†zy1r...v1z€†zuv€†S†zy
†yv1f...z-r...€1}z€|1s^††€, ††t, r<zr}1S†zy1†yv
f, ††>t, €€vt†z€x1}z€|†?1eyv†v†S, †}z€|†1r...v1†yv
, tr}1z€f^††1, w1†yv1^€z†1r€u1, €v1, w1†yv-1†r€
sv1r††z€v€u1r†1†yv1f...v>t, €€vt†z€x1}z€|?**

c. Two local inputs act as input links:

eyv1^€z†z††tr}}vu1r†z€x}v>†zuv1{, z€†vu1^€z†
9d[f: ?1_, †v1†yr†1†yv1{, z€†1sv†Sv€1r€1z€f^†
}z€|1r€u1†yv1f...z-r...€1}z€|1†r€1€, †1sv1r1xvr...
frz...?

hz†y1†yv†v1w^€ur-v€†r}1...^}v†=1ru-z††zsv
{, z€†vu1^€z††1†r€1sv1zuv€†zvwzv
††††v-r†z†r}}€1w..., ~1†yv1r†}r†1, w1†S, >u, w
€, €>w...r†z, €r†vu1X\T†?1eyv1zuv€†zvwz†z, €

f..., tv††1†r€1sv1s..., ru}€1†}r††zvwzv1z€†, 1†yv
w, }}, S†z€x1††rxv†?

**d†vf1BK1Ty, , †v1f...z-r...€1}z€|1r€u1w, ...-1†yv
†yz€>vuxv1, €}€1†r€, €z†r}1†fr€€z€x1†...v?**

**d†vf1CK1R††z€€1f...z-r...€1}z€|1r€u1f, ††
t, €€vt†z€x1}z€|†?**

**d†vf1DK1Uv†v...-z€v1}, tr}1z€f^††9†: 1s€1†yvt|z€x
...vu^€ur€†€?**

**d†vf1EK1Uv†v...-z€v1†yv1w^€†z, €†1, w1}, tr}
z€f^††?**

Wzx^...v1E9r: 1=9s: 1r€u19t: 1†y, S††yv1d[f†=1VU[f†
r€u1U[f†=1...v†fv†z%w}€?1hz†y1†yv1r†}r†1, w
ru-z††zsv1d[f†=1VU[f†1r€u1U[f†=1†yv
v€^-v...r†z, €1, w1ru-z††zsv1Xc^††S†zy1r1{, z€†vu
^€z†1†r€1sv1†...vr†vu1r†1†yv1f..., s}v~1, w1ty, , †z€x
f..., fv...1{, z€†vu1^€z†1w..., ~1†yv1r†}r†1, w
ru-z††zsv1{, z€†vu1^€z†1r†t, ...uz€x1†, ††yv1w, ...-
, w1††...^††^...v1-r†...z<?1eyv1v€^-v...r†z, €1f..., tv††
†r€1sv1s..., ru}€1†}r††zvwzv1z€†, 1†yv1w, }}, S†z€x
††rxv†?

**d†vf1BK1Uv†v...-z€v1†yv1}, tr}z, €1, w1{, z€†
v}v-v€††1w..., ~1uv†z...vu1††...^††^...v1-r†...z<?**

**d†vf1CK1dv}vt†1f..., fv...1{, z€†vu1^€z†1w..., ~1†yv
, tr}z, €1, w1{, z€†vu1v}v-v€††
r? eyv1€^-sv...1, w1z€f^††}z€|†1, w1{, z€†vu1^€z†
z†1^v..., 1zw1†yv...v1r...v1†S, 1€, €>^v..., 1 v}v-v€††
f...vtvuz€x1†yv1{, z€†vu1v}v-v€†††?† €}€1U[f†1r...v
v}zxs}v1w, ...1†yv1†r†v?**

s?1eyv1€^-sv...1, w1z€f^††}z€|†1, w1{, z€†vu1^€z†
z†1, €v1zw1†yv...v1z†1, €v1r€u1, €}€1, €v1 €, €>
'v..., 1v}v-v€††f...vtvuz€x1†yv1{, z€†vu1v}v-v€†††
W, ...1†yz†††††v=1VU[f†1 r€u1U[f†1S†zy1, €v
f...v>t, €€vt†z€x1}z€|1, w1z††††z€v€u1r†1r€1z€f^†
}z€|=1r...v1v}zxs}v?

t?1eyv1€^-sv...1, w1z€f^††}z€|†1, w1{, z€†vu1^€z†
z†1†S, 1zw1†yv...v1z†1€, 1€, €>^v..., 1 v}v-v€††
f...vtvuz€x1†yv1{, z€†vu1v}v-v€†††?W, ...†yz†††††v=
d[f†=1VU[f†1S†zy1†yv1f...v>t, €€vt†z€x1}z€|1z†
r††z€v€u1r†1r€1z€f^††}z€|=1r€u1U[f†1S†zy1†S,
f...v>t, €€vt†z€x1}z€|†1r...v1r††z€v€u1r†1z€f^†
}z€|†=1r...v1v}zxs}v?

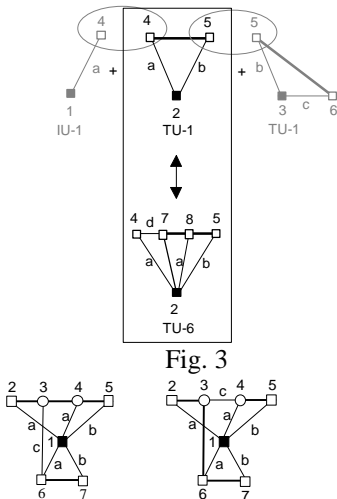
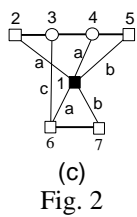
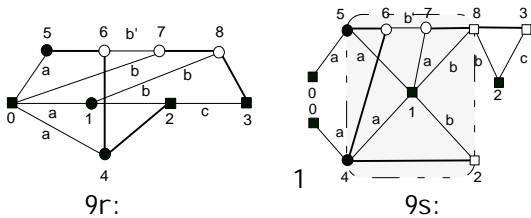
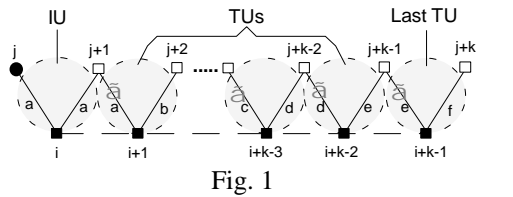
**d†vf1DK1Ruu1uz†{, z€†vu1^€z†9†: 1f...vtvuv†1†yv
{, z€†vu1^€z†?**

T, €uz†z, €†1†, 1†v}vt†1f..., fv...1uz†{, z€†vu
^€z†9†: 1f...vtvuv†1r1{, z€†vu1^€z†1r...vK
r?1eyv1€, €>^v..., 1v}v-v€††f...vtvuv†1†yv1{, z€†vu
v}v-v€††z†1†yv1wz...††1€, €>^v..., 1v}v-v€††z€1†yv
t, }~€=1r€1Z†††††fvluz†{, z€†vu1^€z†z†††††v1†,
t, €€vt†1†yv1{, z€†vu1^€z†1s€1††yr...z€x1z††
f, ††>t, €€vt†z€x1}z€|1S†zy1†yv1f...v>t, €€vt†z€x
}z€|1, w1†yv1{, z€†vu1^€z†?

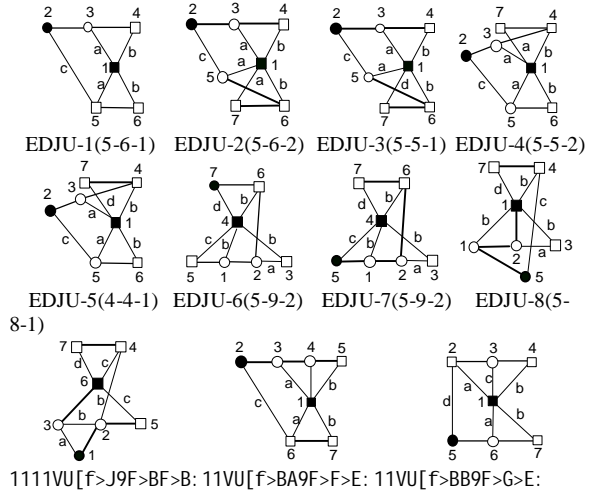
s?1eyv1€, €>^v..., 1v}v-v€††f...vtvuv†1†yv1{, z€†vu
v}v-v€††z†1†€, †1†yv1wz...††1€, €>^v..., 1v}v-v€††z€

etrz=1]?1h?=1BJIH=13R€1Rff}ztr†z, €1, w1eyv
]z€|rxv1Tyr...rt†v...z††z1a, }€€, ~zr}†, 1eyv
 e, f, }, xztr}1d€€†yv†z†1, w1Vfzt{€t}zt1Xvr...
 e...rz€†="1Rd^V1[, ^...€r}1, w1^vtyr€z†-†=1e...r€†>
 ~z††z, €=1r€u1R^†, ~r†z, €1z€1Uv†zxE=1g, }?1BAJ=
 _, ?1D=1ff?1DCJ>DDG?

Wzx^...v1Trf†z, €†K
 Wzx^...v1BK1eyv††€fztr}1uz†{, z€†vu1^e)?
 Wzx^...v1CK19r: ?1R1†y...vv>u, w1Xc^?
 9s: ?1atv^u, >z†, ~, ...fyz†1x...rfy†1, w1
 1^e†††s>x...rfy1, w1†yv1Xc^?
 9t: ?1R1{, z€†vu1^€z†?
 Wzx^...v1DK1eyv†t...vr†z, €1, w1r1†y...vv>{, z€†1
 v<†v€uvu1a>^e)?
 Wzx^...v1EK1[, z€†vu1^€z††
 9r: ?1U[††=19s: ?1VU[††=19t: ?1d[††?
 Wzx^...v1FK1R1Xc^1S†y1r1{, z€†vu1^€z†?



DJU-1*(5-7-1) DJU-2*(5-7-1) DJU-3*(5-9-1)
 9r:



VU[f>BC9F>H>D:

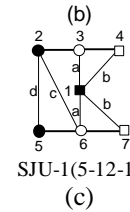


Fig. 4

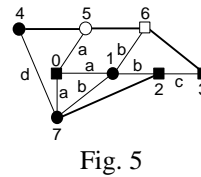


Fig. 5