

MELAKUKAN NORMALISASI MATRIKS KEPUTUSAN

Proses normalisasi A1

$$\begin{aligned}
 r_{11} \frac{33}{\max C1\{33\}} &= \frac{33}{33} = 1 \\
 r_{21} \frac{12000}{\min C2\{2100\}} &= \frac{12000}{2100} = 5.7142 \\
 r_{31} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
 r_{41} \frac{22}{\max C4\{22\}} &= \frac{22}{22} = 1 \\
 r_{51} \frac{4}{\max C5\{7\}} &= \frac{4}{7} = 0.5714 \\
 r_{61} \frac{6}{\max C6\{11\}} &= \frac{6}{11} = 0.5454 \\
 r_{71} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
 r_{81} \frac{0.25}{\max C8\{0.75\}} &= \frac{0.25}{0.75} = 0.3333 \\
 r_{91} \frac{3}{\max C9\{8\}} &= \frac{3}{8} = 0.375 \\
 r_{101} \frac{783}{\max C10\{1303\}} &= \frac{783}{1303} = 0.6009 \\
 r_{111} \frac{6.4}{\max C11\{9.1\}} &= \frac{6.4}{9.1} = 0.7032 \\
 r_{121} \frac{0.001}{\max C12\{0.134\}} &= \frac{0.001}{0.134} = 0.0074 \\
 r_{131} \frac{0.05}{\max C13\{0.21\}} &= \frac{0.05}{0.21} = 0.2380 \\
 r_{141} \frac{0.13}{\max C14\{0.38\}} &= \frac{0.13}{0.38} = 0.3421 \\
 r_{151} \frac{1.47}{\max C15\{1.7\}} &= \frac{1.47}{1.7} = 0.8647
 \end{aligned}$$

$$\begin{aligned}
 r_{161} \frac{0.005}{\max C16\{0.005\}} &= \frac{0.005}{0.005} = 1 \\
 r_{171} \frac{500}{\max C17\{540\}} &= \frac{500}{540} = 0.9259 \\
 r_{181} \frac{0.025}{\max C18\{0.095\}} &= \frac{0.025}{0.095} = 0.2631 \\
 r_{191} \frac{0.021}{\max C19\{0.092\}} &= \frac{0.021}{0.092} = 0.2282 \\
 r_{201} \frac{5.8}{\max C20\{9\}} &= \frac{5.8}{9} = 0.6444 \\
 r_{211} \frac{1}{\max C21\{1\}} &= \frac{1}{1} = 1 \\
 r_{221} \frac{0.042}{\max C22\{0.092\}} &= \frac{0.042}{0.092} = 0.4565 \\
 r_{231} \frac{5}{\max C23\{5\}} &= \frac{5}{5} = 1 \\
 r_{241} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
 r_{251} \frac{400}{\max C25\{400\}} &= \frac{400}{400} = 1 \\
 r_{261} \frac{0.026}{\max C26\{0.21\}} &= \frac{0.026}{0.21} = 0.1238 \\
 r_{271} \frac{0.26}{\max C27\{0.48\}} &= \frac{0.26}{0.48} = 0.5416 \\
 r_{281} \frac{0.05}{\max C28\{0.21\}} &= \frac{0.05}{0.21} = 0.2381 \\
 r_{291} \frac{0.014}{\max C29\{0.092\}} &= \frac{0.014}{0.092} = 0.1521
 \end{aligned}$$

$$r_{301} \frac{6}{\max C30\{9\}} = \frac{6}{9} = 0.6666$$

$$r_{311} \frac{0}{\max C31\{0\}} = \frac{0}{0} = 0$$

$$r_{321} \frac{0}{\max C32\{0\}} = \frac{0}{0} = 0$$

Proses normalisasi A2

$$r_{12} \frac{2}{\max C1\{33\}} = \frac{2}{33} = 0.0606$$

$$r_{22} \frac{5600}{\min C2\{2100\}} = \frac{5600}{2100} = 2.6666$$

$$r_{32} \frac{220}{\max C3\{220\}} = \frac{220}{220} = 1$$

$$r_{42} \frac{1}{\max C4\{22\}} = \frac{1}{22} = 0.0454$$

$$r_{52} \frac{3}{\max C5\{7\}} = \frac{3}{7} = 0.4285$$

$$r_{62} \frac{4}{\max C6\{11\}} = \frac{4}{11} = 0.3636$$

$$r_{72} \frac{0}{\max C7\{0.25\}} = \frac{0}{0.25} = 0$$

$$r_{82} \frac{0}{\max C8\{0.75\}} = \frac{0}{0.75} = 0$$

$$r_{92} \frac{5}{\max C9\{8\}} = \frac{5}{8} = 0.625$$

$$r_{102} \frac{542}{\max C10\{1303\}} = \frac{542}{1303} = 0.4159$$

$$r_{112} \frac{7.2}{\max C11\{9.1\}} = \frac{7.2}{9.1} = 0.7912$$

$$r_{122} \frac{0.0013}{\max C12\{0.134\}} = \frac{0.0013}{0.134} = 0.01$$

$$r_{132} \frac{0.026}{\max C13\{0.21\}} = \frac{0.026}{0.21} = 0.1238$$

$$r_{142} \frac{0.045}{\max C14\{0.38\}} = \frac{0.045}{0.38} = 0.1184$$

$$r_{152} \frac{1.33}{\max C15\{1.7\}} = \frac{1.33}{1.7} = 0.7823$$

$$r_{162} \frac{0.0036}{\max C16\{0.005\}} = \frac{0.0036}{0.005} = 0.728$$

$$r_{172} \frac{267}{\max C17\{540\}} = \frac{267}{540} = 0.4944$$

$$r_{182} \frac{0.059}{\max C18\{0.095\}} = \frac{0.059}{0.095} = 0.6210$$

$$r_{192} \frac{0.089}{\max C19\{0.092\}} = \frac{0.089}{0.092} = 0.9673$$

$$r_{202} \frac{8}{\max C20\{9\}} = \frac{8}{9} = 0.8888$$

$$r_{212} \frac{0.5}{\max C21\{1\}} = \frac{0.5}{1} = 0.5$$

$$r_{222} \frac{0.026}{\max C22\{0.092\}} = \frac{0.026}{0.092} = 0.2826$$

$$r_{232} \frac{2.5}{\max C23\{5\}} = \frac{2.5}{5} = 0.5$$

$$r_{242} \frac{0}{\max C24\{0\}} = \frac{0}{0} = 0$$

$$r_{252} \frac{197}{\max C25\{400\}} = \frac{197}{400} = 0.4925$$

$$r_{262} \frac{0.037}{\max C26\{0.21\}} = \frac{0.037}{0.21} = 0.1761$$

$$\begin{aligned}
r_{272} \frac{0.15}{\max C27\{0.48\}} &= \frac{0.15}{0.48} \\
&= 0.3125 \\
r_{282} \frac{0.015}{\max C28\{0.21\}} &= \frac{0.015}{0.21} \\
&= 0.0714 \\
r_{292} \frac{0.026}{\max C29\{0.092\}} &= \frac{0.026}{0.092} \\
&= 0.2826
\end{aligned}$$

Proses normalisasi A3

$$\begin{aligned}
r_{13} \frac{3}{\max C1\{33\}} &= \frac{3}{33} = 0.0909 \\
r_{23} \frac{16800}{\min C2\{2100\}} &= \frac{16800}{2100} = 8 \\
r_{33} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{43} \frac{3}{\max C4\{22\}} &= \frac{3}{22} = 0.1363 \\
r_{53} \frac{5}{\max C5\{7\}} &= \frac{5}{7} = 0.7142 \\
r_{63} \frac{10}{\max C6\{11\}} &= \frac{10}{11} = 0.9090 \\
r_{73} \frac{0.25}{\max C7\{0.25\}} &= \frac{0.25}{0.25} = 1 \\
r_{83} \frac{0.25}{\max C8\{0.75\}} &= \frac{0.25}{0.75} \\
&= 0.3333 \\
r_{93} \frac{6}{\max C9\{8\}} &= \frac{6}{8} = 0.75 \\
r_{103} \frac{1084}{\max C10\{1303\}} &= \frac{1084}{1303} \\
&= 0.8319 \\
r_{113} \frac{6.8}{\max C11\{9.1\}} &= \frac{6.8}{9.1} \\
&= 0.7472 \\
r_{123} \frac{0.0110}{\max C12\{0.134\}} &= \frac{0.0110}{0.134} \\
&= 0.0820
\end{aligned}$$

$$r_{302} \frac{8}{\max C30\{9\}} = \frac{8}{9} = 0.8888$$

$$\begin{aligned}
r_{312} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{322} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

$$\begin{aligned}
r_{133} \frac{0.037}{\max C13\{0.21\}} &= \frac{0.037}{0.21} \\
&= 0.1761 \\
r_{143} \frac{0.053}{\max C14\{0.38\}} &= \frac{0.053}{0.38} \\
&= 0.1394 \\
r_{153} \frac{1}{\max C15\{1.7\}} &= \frac{1}{1.7} \\
&= 0.5882 \\
r_{163} \frac{0.0045}{\max C16\{0.005\}} &= \frac{0.0045}{0.005} \\
&= 0.902 \\
r_{173} \frac{441}{\max C17\{540\}} &= \frac{441}{540} \\
&= 0.8166 \\
r_{183} \frac{0.095}{\max C18\{0.095\}} &= \frac{0.095}{0.095} \\
&= 1 \\
r_{193} \frac{0.042}{\max C19\{0.092\}} &= \frac{0.042}{0.092} \\
&= 0.4565 \\
r_{203} \frac{6.2}{\max C20\{9\}} &= \frac{6.2}{9} = 0.6888 \\
r_{213} \frac{0.76}{\max C21\{1\}} &= \frac{0.76}{1} = 0.76 \\
r_{223} \frac{0.055}{\max C22\{0.092\}} &= \frac{0.055}{0.092} \\
&= 0.5978
\end{aligned}$$

$$\begin{aligned}
r_{233} \frac{3.8}{\max C23\{5\}} &= \frac{3.8}{5} = 0.76 \\
r_{243} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{253} \frac{376}{\max C25\{400\}} &= \frac{376}{400} = 0.94 \\
r_{263} \frac{0.048}{\max C26\{0.21\}} &= \frac{0.048}{0.21} \\
&= 0.2285 \\
r_{273} \frac{0.18}{\max C27\{0.48\}} &= \frac{0.18}{0.48} \\
&= 0.375
\end{aligned}
\quad
\begin{aligned}
r_{283} \frac{0.019}{\max C28\{0.21\}} &= \frac{0.019}{0.21} \\
&= 0.0904 \\
r_{293} \frac{0.055}{\max C29\{0.092\}} &= \frac{0.055}{0.092} \\
&= 0.5978 \\
r_{303} \frac{9}{\max C30\{9\}} &= \frac{9}{9} = 1 \\
r_{313} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{323} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A4

$$\begin{aligned}
r_{14} \frac{9}{\max C1\{33\}} &= \frac{9}{33} = 0.2727 \\
r_{24} \frac{6900}{\min C2\{2100\}} &= \frac{6900}{2100} \\
&= 3.2857 \\
r_{34} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{44} \frac{8}{\max C4\{22\}} &= \frac{8}{22} = 0.3636 \\
r_{54} \frac{2}{\max C5\{7\}} &= \frac{2}{7} = 0.2857 \\
r_{64} \frac{5}{\max C6\{11\}} &= \frac{5}{11} = 0.4545 \\
r_{74} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{84} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{94} \frac{4}{\max C9\{8\}} &= \frac{4}{8} = 0.5 \\
r_{104} \frac{800}{\max C10\{1303\}} &= \frac{800}{1303} \\
&= 0.6139 \\
r_{114} \frac{6.6}{\max C11\{9.1\}} &= \frac{6.6}{9.1} \\
&= 0.7252
\end{aligned}
\quad
\begin{aligned}
r_{124} \frac{0.0410}{\max C12\{0.134\}} &= \frac{0.0410}{0.134} \\
&= 0.3059 \\
r_{134} \frac{0.048}{\max C13\{0.21\}} &= \frac{0.048}{0.21} \\
&= 0.2285 \\
r_{144} \frac{0.089}{\max C14\{0.38\}} &= \frac{0.089}{0.38} \\
&= 0.2342 \\
r_{154} \frac{1.12}{\max C15\{1.7\}} &= \frac{1.12}{1.7} \\
&= 0.6588 \\
r_{164} \frac{0.0022}{\max C16\{0.005\}} &= \frac{0.0022}{0.005} \\
&= 0.452 \\
r_{174} \frac{478}{\max C17\{540\}} &= \frac{478}{540} \\
&= 0.8851 \\
r_{184} \frac{0.068}{\max C18\{0.095\}} &= \frac{0.068}{0.095} \\
&= 0.7157 \\
r_{194} \frac{0.058}{\max C19\{0.092\}} &= \frac{0.058}{0.092} \\
&= 0.6304 \\
r_{204} \frac{2.2}{\max C20\{9\}} &= \frac{2.2}{9} = 0.2444
\end{aligned}$$

$$\begin{aligned}
r_{214} \frac{0.8}{\max C21\{1\}} &= \frac{0.8}{1} = 0.8 \\
r_{224} \frac{0.091}{\max C22\{0.092\}} &= \frac{0.091}{0.092} \\
&= 0.9891 \\
r_{234} \frac{4}{\max C23\{5\}} &= \frac{4}{5} = 0.8 \\
r_{244} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{254} \frac{168}{\max C25\{400\}} &= \frac{168}{400} = 0.42 \\
r_{264} \frac{0.039}{\max C26\{0.21\}} &= \frac{0.039}{0.21} \\
&= 0.1857
\end{aligned}$$

$$\begin{aligned}
r_{274} \frac{0.19}{\max C27\{0.48\}} &= \frac{0.19}{0.48} \\
&= 0.3958 \\
r_{284} \frac{0.01}{\max C28\{0.21\}} &= \frac{0.01}{0.21} \\
&= 0.0476 \\
r_{294} \frac{0.044}{\max C29\{0.092\}} &= \frac{0.044}{0.092} \\
&= 0.4782 \\
r_{304} \frac{4.4}{\max C30\{9\}} &= \frac{4.4}{9} = 0.4888 \\
r_{314} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{324} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A5

$$\begin{aligned}
r_{15} \frac{6}{\max C1\{33\}} &= \frac{6}{33} = 0.1818 \\
r_{25} \frac{6300}{\min C2\{2100\}} &= \frac{6300}{2100} = 3 \\
r_{35} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{45} \frac{6}{\max C4\{22\}} &= \frac{6}{22} = 0.2727 \\
r_{55} \frac{5}{\max C5\{7\}} &= \frac{5}{7} = 0.7142 \\
r_{65} \frac{5}{\max C6\{11\}} &= \frac{5}{11} = 0.4545 \\
r_{75} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{85} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{95} \frac{6}{\max C9\{8\}} &= \frac{6}{8} = 0.75 \\
r_{105} \frac{665}{\max C10\{1303\}} &= \frac{665}{1303} \\
&= 0.5103
\end{aligned}$$

$$\begin{aligned}
r_{115} \frac{7.3}{\max C11\{9.1\}} &= \frac{7.3}{9.1} \\
&= 0.8021 \\
r_{125} \frac{0.0010}{\max C12\{0.134\}} &= \frac{0.0010}{0.134} \\
&= 0.0074 \\
r_{135} \frac{0.039}{\max C13\{0.21\}} &= \frac{0.039}{0.21} \\
&= 0.1857 \\
r_{145} \frac{0.077}{\max C14\{0.38\}} &= \frac{0.077}{0.38} \\
&= 0.2026 \\
r_{155} \frac{1.26}{\max C15\{1.7\}} &= \frac{1.26}{1.7} \\
&= 0.7411 \\
r_{165} \frac{0.0013}{\max C16\{0.005\}} &= \frac{0.0013}{0.005} \\
&= 0.274 \\
r_{175} \frac{208}{\max C17\{540\}} &= \frac{208}{540} \\
&= 0.3851
\end{aligned}$$

$$\begin{aligned}
r_{185} \frac{0.054}{\max C18\{0.095\}} &= \frac{0.054}{0.095} \\
&= 0.5684 \\
r_{195} \frac{0.073}{\max C19\{0.092\}} &= \frac{0.073}{0.092} \\
&= 0.7934 \\
r_{205} \frac{5}{\max C20\{9\}} &= \frac{5}{9} = 0.5555 \\
r_{215} \frac{1}{\max C21\{1\}} &= \frac{1}{1} = 1 \\
r_{225} \frac{0.011}{\max C22\{0.092\}} &= \frac{0.011}{0.092} \\
&= 0.1195 \\
r_{235} \frac{5}{\max C23\{5\}} &= \frac{5}{5} = 1 \\
r_{245} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{255} \frac{400}{\max C25\{400\}} &= \frac{400}{400} = 1
\end{aligned}$$

Proses normalisasi A6

$$\begin{aligned}
r_{16} \frac{8}{\max C1\{33\}} &= \frac{8}{33} = 0.2424 \\
r_{26} \frac{2500}{\min C2\{2100\}} &= \frac{2500}{2100} \\
&= 1.1904 \\
r_{36} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{46} \frac{6}{\max C4\{22\}} &= \frac{6}{22} = 0.2727 \\
r_{56} \frac{2}{\max C5\{7\}} &= \frac{2}{7} = 0.2857 \\
r_{66} \frac{4}{\max C6\{11\}} &= \frac{4}{11} = 0.3636 \\
r_{76} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{86} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{96} \frac{4}{\max C9\{8\}} &= \frac{4}{8} = 0.5
\end{aligned}$$

$$\begin{aligned}
r_{265} \frac{0.019}{\max C26\{0.21\}} &= \frac{0.019}{0.21} \\
&= 0.0904 \\
r_{275} \frac{0.22}{\max C27\{0.48\}} &= \frac{0.22}{0.48} \\
&= 0.4583 \\
r_{285} \frac{0.021}{\max C28\{0.21\}} &= \frac{0.021}{0.21} \\
&= 0.1 \\
r_{295} \frac{0.046}{\max C29\{0.092\}} &= \frac{0.046}{0.092} \\
&= 0.5 \\
r_{305} \frac{7}{\max C30\{9\}} &= \frac{7}{9} = 0.7777 \\
r_{315} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{325} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

$$\begin{aligned}
r_{106} \frac{504}{\max C10\{1303\}} &= \frac{504}{1303} \\
&= 0.3867 \\
r_{116} \frac{6.9}{\max C11\{9.1\}} &= \frac{6.9}{9.1} \\
&= 0.7582 \\
r_{126} \frac{0.0056}{\max C12\{0.134\}} &= \frac{0.0056}{0.134} \\
&= 0.0419 \\
r_{136} \frac{0.01}{\max C13\{0.21\}} &= \frac{0.01}{0.21} \\
&= 0.0476 \\
r_{146} \frac{0.031}{\max C14\{0.38\}} &= \frac{0.031}{0.38} \\
&= 0.0815 \\
r_{156} \frac{1.35}{\max C15\{1.7\}} &= \frac{1.35}{1.7} \\
&= 0.7941
\end{aligned}$$

$$\begin{aligned}
r_{166} \frac{0.0048}{\max C16\{0.005\}} &= \frac{0.0048}{0.005} \\
&= 0.966 \\
r_{176} \frac{380}{\max C17\{540\}} &= \frac{380}{540} \\
&= 0.7037 \\
r_{186} \frac{0.067}{\max C18\{0.095\}} &= \frac{0.067}{0.095} \\
&= 0.7052 \\
r_{196} \frac{0.088}{\max C19\{0.092\}} &= \frac{0.088}{0.092} \\
&= 0.9565 \\
r_{206} \frac{8}{\max C20\{9\}} &= \frac{8}{9} = 0.8888 \\
r_{216} \frac{0.81}{\max C21\{1\}} &= \frac{0.81}{1} = 0.81 \\
r_{226} \frac{0.044}{\max C22\{0.092\}} &= \frac{0.044}{0.092} \\
&= 0.4782 \\
r_{236} \frac{1}{\max C23\{5\}} &= \frac{1}{5} = 0.2 \\
r_{246} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A7

$$\begin{aligned}
r_{17} \frac{7}{\max C1\{33\}} &= \frac{7}{33} = 0.2121 \\
r_{27} \frac{5100}{\min C2\{2100\}} &= \frac{5100}{2100} \\
&= 2.4285 \\
r_{37} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{47} \frac{4}{\max C4\{22\}} &= \frac{4}{22} = 0.1818 \\
r_{57} \frac{4}{\max C5\{7\}} &= \frac{4}{7} = 0.5714 \\
r_{67} \frac{6}{\max C6\{11\}} &= \frac{6}{11} = 0.5454 \\
r_{77} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0
\end{aligned}$$

$$\begin{aligned}
r_{256} \frac{312}{\max C25\{400\}} &= \frac{312}{400} = 0.78 \\
r_{266} \frac{0.026}{\max C26\{0.21\}} &= \frac{0.026}{0.21} \\
&= 0.1238 \\
r_{276} \frac{0.46}{\max C27\{0.48\}} &= \frac{0.46}{0.48} \\
&= 0.9583 \\
r_{286} \frac{0.022}{\max C28\{0.21\}} &= \frac{0.022}{0.21} \\
&= 0.1047 \\
r_{296} \frac{0.074}{\max C29\{0.092\}} &= \frac{0.074}{0.092} \\
&= 0.8043 \\
r_{306} \frac{1}{\max C30\{9\}} &= \frac{1}{9} = 0.1111 \\
r_{316} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{326} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

$$\begin{aligned}
r_{87} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{97} \frac{2}{\max C9\{8\}} &= \frac{2}{8} = 0.25 \\
r_{107} \frac{842}{\max C10\{1303\}} &= \frac{842}{1303} \\
&= 0.6462 \\
r_{117} \frac{6.5}{\max C11\{9.1\}} &= \frac{6.5}{9.1} \\
&= 0.7142 \\
r_{127} \frac{0.0044}{\max C12\{0.134\}} &= \frac{0.0044}{0.134} \\
&= 0.0330 \\
r_{137} \frac{0.21}{\max C13\{0.21\}} &= \frac{0.21}{0.21} = 0.1
\end{aligned}$$

$$\begin{aligned}
r_{147} \frac{0.11}{\max C14\{0.38\}} &= \frac{0.11}{0.38} \\
&= 0.2894 \\
r_{157} \frac{1.23}{\max C15\{1.7\}} &= \frac{1.23}{1.7} \\
&= 0.7235 \\
r_{167} \frac{0.0026}{\max C16\{0.005\}} &= \frac{0.0026}{0.005} \\
&= 0.53 \\
r_{177} \frac{500}{\max C17\{540\}} &= \frac{500}{540} \\
&= 0.9259 \\
r_{187} \frac{0.073}{\max C18\{0.095\}} &= \frac{0.073}{0.095} \\
&= 0.7684 \\
r_{197} \frac{0.014}{\max C19\{0.092\}} &= \frac{0.014}{0.092} \\
&= 0.1521 \\
r_{207} \frac{5}{\max C20\{9\}} &= \frac{5}{9} = 0.5555 \\
r_{217} \frac{0.91}{\max C21\{1\}} &= \frac{0.91}{1} = 0.91 \\
r_{227} \frac{0.046}{\max C22\{0.092\}} &= \frac{0.046}{0.092} \\
&= 0.5
\end{aligned}$$

$$\begin{aligned}
r_{237} \frac{3.5}{\max C23\{5\}} &= \frac{3.5}{5} = 0.7 \\
r_{247} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{257} \frac{252}{\max C25\{400\}} &= \frac{252}{400} = 0.63 \\
r_{267} \frac{0.015}{\max C26\{0.21\}} &= \frac{0.015}{0.21} \\
&= 0.071 \\
r_{277} \frac{0.21}{\max C27\{0.48\}} &= \frac{0.21}{0.48} \\
&= 0.4375 \\
r_{287} \frac{0.013}{\max C28\{0.21\}} &= \frac{0.013}{0.21} \\
&= 0.0619 \\
r_{297} \frac{0.083}{\max C29\{0.092\}} &= \frac{0.083}{0.092} \\
&= 0.9021 \\
r_{307} \frac{2}{\max C30\{9\}} &= \frac{2}{9} = 0.2222 \\
r_{317} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{327} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A8

$$\begin{aligned}
r_{18} \frac{1}{\max C1\{33\}} &= \frac{1}{33} = 0.0303 \\
r_{28} \frac{2100}{\min C2\{2100\}} &= \frac{2100}{2100} = 1 \\
r_{38} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{48} \frac{6}{\max C4\{22\}} &= \frac{6}{22} = 0 \\
r_{58} \frac{4}{\max C5\{7\}} &= \frac{4}{7} = 0.5714 \\
r_{68} \frac{5}{\max C6\{11\}} &= \frac{5}{11} = 0.4545
\end{aligned}$$

$$\begin{aligned}
r_{78} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{88} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{98} \frac{4}{\max C9\{8\}} &= \frac{4}{8} = 0.5 \\
r_{108} \frac{472}{\max C10\{1303\}} &= \frac{472}{1303} \\
&= 0.3622 \\
r_{118} \frac{6.7}{\max C11\{9.1\}} &= \frac{6.7}{9.1} \\
&= 0.7362
\end{aligned}$$

$$\begin{aligned}
r_{128} \frac{0.0059}{\max C12\{0.134\}} &= \frac{0.0059}{0.134} \\
&= 0.0441 \\
r_{138} \frac{0.022}{\max C13\{0.21\}} &= \frac{0.022}{0.21} \\
&= 0.1047 \\
r_{148} \frac{0.21}{\max C14\{0.38\}} &= \frac{0.21}{0.38} \\
&= 0.5526 \\
r_{158} \frac{1.3}{\max C15\{1.7\}} &= \frac{1.3}{1.7} \\
&= 0.7647 \\
r_{168} \frac{0.0017}{\max C16\{0.005\}} &= \frac{0.0017}{0.005} \\
&= 0.356 \\
r_{178} \frac{325}{\max C17\{540\}} &= \frac{325}{540} \\
&= 0.6018 \\
r_{188} \frac{0.086}{\max C18\{0.095\}} &= \frac{0.086}{0.095} \\
&= 0.9052 \\
r_{198} \frac{0.026}{\max C19\{0.092\}} &= \frac{0.026}{0.092} \\
&= 0.2826 \\
r_{208} \frac{4}{\max C20\{9\}} &= \frac{4}{9} = 0.4444 \\
r_{218} \frac{0.77}{\max C21\{1\}} &= \frac{0.77}{1} = 0.77
\end{aligned}
\qquad
\begin{aligned}
r_{228} \frac{0.042}{\max C22\{0.092\}} &= \frac{0.042}{0.092} \\
&= 0.4565 \\
r_{238} \frac{2}{\max C23\{5\}} &= \frac{2}{5} = 0.4 \\
r_{248} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{258} \frac{344}{\max C25\{400\}} &= \frac{344}{400} = 0.86 \\
r_{268} \frac{0.019}{\max C26\{0.21\}} &= \frac{0.019}{0.21} \\
&= 0.0904 \\
r_{278} \frac{0.24}{\max C27\{0.48\}} &= \frac{0.24}{0.48} = 0.5 \\
r_{288} \frac{0.017}{\max C28\{0.21\}} &= \frac{0.017}{0.21} \\
&= 0.0809 \\
r_{298} \frac{0.049}{\max C29\{0.092\}} &= \frac{0.049}{0.092} \\
&= 0.5326 \\
r_{308} \frac{6}{\max C30\{9\}} &= \frac{6}{9} = 0.6666 \\
r_{318} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{328} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A9

$$\begin{aligned}
r_{19} \frac{0}{\max C1\{33\}} &= \frac{0}{33} = 0 \\
r_{29} \frac{9300}{\min C2\{2100\}} &= \frac{9300}{2100} \\
&= 4.4285 \\
r_{39} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{49} \frac{6}{\max C4\{22\}} &= \frac{6}{22} = 0
\end{aligned}
\qquad
\begin{aligned}
r_{59} \frac{7}{\max C5\{7\}} &= \frac{7}{7} = 1 \\
r_{69} \frac{7}{\max C6\{11\}} &= \frac{7}{11} = 0.6363 \\
r_{79} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{89} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{99} \frac{5}{\max C9\{8\}} &= \frac{5}{8} = 0.625
\end{aligned}$$

$$\begin{aligned}
r_{109} \frac{754}{\max C10\{1303\}} &= \frac{754}{1303} \\
&= 0.5786 \\
r_{119} \frac{7.2}{\max C11\{9.1\}} &= \frac{7.2}{9.1} \\
&= 0.7912 \\
r_{129} \frac{0.0023}{\max C12\{0.134\}} &= \frac{0.0023}{0.134} \\
&= 0.0171 \\
r_{139} \frac{0.013}{\max C13\{0.21\}} &= \frac{0.013}{0.21} \\
&= 0.0619 \\
r_{149} \frac{0.3}{\max C14\{0.38\}} &= \frac{0.3}{0.38} \\
&= 0.7894 \\
r_{159} \frac{1.15}{\max C15\{1.7\}} &= \frac{1.15}{1.7} \\
&= 0.6764 \\
r_{169} \frac{0.0013}{\max C16\{0.005\}} &= \frac{0.0013}{0.005} \\
&= 0.278 \\
r_{179} \frac{290}{\max C17\{540\}} &= \frac{290}{540} \\
&= 0.5370 \\
r_{189} \frac{0.082}{\max C18\{0.095\}} &= \frac{0.082}{0.095} \\
&= 0.8631 \\
r_{199} \frac{0.055}{\max C19\{0.092\}} &= \frac{0.055}{0.092} \\
&= 0.5978 \\
r_{209} \frac{2.9}{\max C20\{9\}} &= \frac{2.9}{9} = 0.3222
\end{aligned}$$

$$\begin{aligned}
r_{219} \frac{0.56}{\max C21\{1\}} &= \frac{0.56}{1} = 0.56 \\
r_{229} \frac{0.058}{\max C22\{0.092\}} &= \frac{0.058}{0.092} \\
&= 0.6304 \\
r_{239} \frac{4}{\max C23\{5\}} &= \frac{4}{5} = 0.8 \\
r_{249} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{259} \frac{122}{\max C25\{400\}} &= \frac{122}{400} \\
&= 0.305 \\
r_{269} \frac{0.01}{\max C26\{0.21\}} &= \frac{0.01}{0.21} \\
&= 0.0476 \\
r_{279} \frac{0.13}{\max C27\{0.48\}} &= \frac{0.13}{0.48} \\
&= 0.2708 \\
r_{289} \frac{0.026}{\max C28\{0.21\}} &= \frac{0.026}{0.21} \\
&= 0.1238 \\
r_{299} \frac{0.058}{\max C29\{0.092\}} &= \frac{0.058}{0.092} \\
&= 0.6304 \\
r_{309} \frac{5}{\max C30\{9\}} &= \frac{5}{9} = 0.5555 \\
r_{319} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{329} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A10

$$\begin{aligned}
r_{110} \frac{22}{\max C1\{33\}} &= \frac{22}{33} = 0.6666 \\
r_{210} \frac{8800}{\min C2\{2100\}} &= \frac{8800}{2100} \\
&= 4.1904
\end{aligned}$$

$$\begin{aligned}
r_{310} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{410} \frac{9}{\max C4\{22\}} &= \frac{9}{22} = 0.4090 \\
r_{510} \frac{3}{\max C5\{7\}} &= \frac{3}{7} = 0.4285
\end{aligned}$$

$$\begin{aligned}
r_{610} \frac{11}{\max C6\{11\}} &= \frac{11}{11} = 1 \\
r_{710} \frac{0.25}{\max C7\{0.25\}} &= \frac{0.25}{0.25} = 1 \\
r_{810} \frac{0.75}{\max C8\{0.75\}} &= \frac{0.75}{0.75} = 1 \\
r_{910} \frac{8}{\max C9\{8\}} &= \frac{8}{8} = 1 \\
r_{1010} \frac{521}{\max C10\{1303\}} &= \frac{521}{1303} \\
&= 0.3998 \\
r_{1110} \frac{9.1}{\max C11\{9.1\}} &= \frac{9.1}{9.1} = 1 \\
r_{1210} \frac{0.11}{\max C12\{0.134\}} &= \frac{0.11}{0.134} \\
&= 0.8313 \\
r_{1310} \frac{0.017}{\max C13\{0.21\}} &= \frac{0.017}{0.21} \\
&= 0.0809 \\
r_{1410} \frac{0.31}{\max C14\{0.38\}} &= \frac{0.31}{0.38} \\
&= 0.8157 \\
r_{1510} \frac{1.6}{\max C15\{1.7\}} &= \frac{1.6}{1.7} \\
&= 0.9411 \\
r_{1610} \frac{0.0022}{\max C16\{0.005\}} &= \frac{0.0022}{0.005} \\
&= 0.456 \\
r_{1710} \frac{513}{\max C17\{540\}} &= \frac{513}{540} \\
&= 0.95 \\
r_{1810} \frac{0.095}{\max C18\{0.095\}} &= \frac{0.095}{0.095} \\
&= 1
\end{aligned}
\quad
\begin{aligned}
r_{1910} \frac{0.091}{\max C19\{0.092\}} &= \frac{0.091}{0.092} \\
&= 0.9891 \\
r_{2010} \frac{6}{\max C20\{9\}} &= \frac{6}{9} = 0.6666 \\
r_{2110} \frac{0.95}{\max C21\{1\}} &= \frac{0.95}{1} = 0.95 \\
r_{2210} \frac{0.073}{\max C22\{0.092\}} &= \frac{0.073}{0.092} \\
&= 0.7934 \\
r_{2310} \frac{1.4}{\max C23\{5\}} &= \frac{1.4}{5} = 0.28 \\
r_{2410} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{2510} \frac{400}{\max C25\{400\}} &= \frac{400}{400} = 1 \\
r_{2610} \frac{0.021}{\max C26\{0.21\}} &= \frac{0.021}{0.21} \\
&= 0.1 \\
r_{2710} \frac{0.017}{\max C27\{0.48\}} &= \frac{0.017}{0.48} \\
&= 0.0354 \\
r_{2810} \frac{0.037}{\max C28\{0.21\}} &= \frac{0.037}{0.21} \\
&= 0.1761 \\
r_{2910} \frac{0.073}{\max C29\{0.092\}} &= \frac{0.073}{0.092} \\
&= 0.7934 \\
r_{3010} \frac{9}{\max C30\{9\}} &= \frac{9}{9} = 1 \\
r_{3110} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3210} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A11

$$r_{111} \frac{13}{\max C1\{33\}} = \frac{13}{33} = 0.3939$$

$$r_{211} \frac{2100}{\min C2\{2100\}} = \frac{2100}{2100} = 1$$

$$r_{311} \frac{220}{\max C3\{220\}} = \frac{220}{220} = 1$$

$$r_{411} \frac{9}{\max C4\{22\}} = \frac{9}{22} = 0.4090$$

$$\begin{aligned}
r_{511} \frac{2}{\max C5\{7\}} &= \frac{2}{7} = 0.2857 \\
r_{611} \frac{9}{\max C6\{11\}} &= \frac{9}{11} = 0.8181 \\
r_{711} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{811} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
r_{911} \frac{3}{\max C9\{8\}} &= \frac{3}{8} = 0.375 \\
r_{1011} \frac{656}{\max C10\{1303\}} &= \frac{656}{1303} \\
&= 0.5034 \\
r_{1111} \frac{5.9}{\max C11\{9.1\}} &= \frac{5.9}{9.1} \\
&= 0.6483 \\
r_{1211} \frac{0.0214}{\max C12\{0.134\}} &= \frac{0.0214}{0.134} \\
&= 0.1597 \\
r_{1311} \frac{0.019}{\max C13\{0.21\}} &= \frac{0.019}{0.21} \\
&= 0.0904 \\
r_{1411} \frac{0.14}{\max C14\{0.38\}} &= \frac{0.14}{0.38} \\
&= 0.3684 \\
r_{1511} \frac{1.46}{\max C15\{1.7\}} &= \frac{1.46}{1.7} \\
&= 0.8588 \\
r_{1611} \frac{0.0034}{\max C16\{0.005\}} &= \frac{0.0034}{0.005} \\
&= 0.69 \\
r_{1711} \frac{434}{\max C17\{540\}} &= \frac{434}{540} \\
&= 0.8037 \\
r_{1811} \frac{0.011}{\max C18\{0.095\}} &= \frac{0.011}{0.095} \\
&= 0.1157
\end{aligned}
\quad
\begin{aligned}
r_{1911} \frac{0.011}{\max C19\{0.092\}} &= \frac{0.011}{0.092} \\
&= 0.1195 \\
r_{2011} \frac{8}{\max C20\{9\}} &= \frac{8}{9} = 0.8888 \\
r_{2111} \frac{0.84}{\max C21\{1\}} &= \frac{0.84}{1} = 0.84 \\
r_{2211} \frac{0.088}{\max C22\{0.092\}} &= \frac{0.088}{0.092} \\
&= 0.9565 \\
r_{2311} \frac{4}{\max C23\{5\}} &= \frac{4}{5} = 0.8 \\
r_{2411} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{2511} \frac{270}{\max C25\{400\}} &= \frac{270}{400} \\
&= 0.675 \\
r_{2611} \frac{0.022}{\max C26\{0.21\}} &= \frac{0.022}{0.21} = \\
&0.1047 \\
r_{2711} \frac{0.019}{\max C27\{0.48\}} &= \frac{0.019}{0.48} \\
&= 0.0395 \\
r_{2811} \frac{0.048}{\max C28\{0.21\}} &= \frac{0.048}{0.21} \\
&= 0.2285 \\
r_{2911} \frac{0.088}{\max C29\{0.092\}} &= \frac{0.088}{0.092} \\
&= 0.9565 \\
r_{3011} \frac{5.8}{\max C30\{9\}} &= \frac{5.8}{9} \\
&= 0.6444 \\
r_{3111} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3211} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A12

$$\begin{aligned}
 r_{112} \frac{2}{\max C1\{33\}} &= \frac{2}{33} = 0.0606 \\
 r_{212} \frac{14700}{\min C2\{2100\}} &= \frac{14700}{2100} = 7 \\
 r_{312} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
 r_{412} \frac{2}{\max C4\{22\}} &= \frac{2}{22} = 0.0909 \\
 r_{512} \frac{5}{\max C5\{7\}} &= \frac{5}{7} = 0.7142 \\
 r_{612} \frac{8}{\max C6\{11\}} &= \frac{8}{11} = 0.7272 \\
 r_{712} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
 r_{812} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0 \\
 r_{912} \frac{4}{\max C9\{8\}} &= \frac{4}{8} = 0.5 \\
 r_{1012} \frac{467}{\max C10\{1303\}} &= \frac{467}{1303} \\
 &= 0.3584 \\
 r_{1112} \frac{7.6}{\max C11\{9.1\}} &= \frac{7.6}{9.1} \\
 &= 0.8351 \\
 r_{1212} \frac{0.0710}{\max C12\{0.134\}} &= \frac{0.0710}{0.134} \\
 &= 0.5298 \\
 r_{1312} \frac{0.026}{\max C13\{0.21\}} &= \frac{0.026}{0.21} \\
 &= 0.1238 \\
 r_{1412} \frac{0.18}{\max C14\{0.38\}} &= \frac{0.18}{0.38} \\
 &= 0.4736 \\
 r_{1512} \frac{1.44}{\max C15\{1.7\}} &= \frac{1.44}{1.7} \\
 &= 0.8470 \\
 r_{1612} \frac{0.0048}{\max C16\{0.005\}} &= \frac{0.0048}{0.005} \\
 &= 0.968
 \end{aligned}$$

$$\begin{aligned}
 r_{1712} \frac{352}{\max C17\{540\}} &= \frac{352}{540} \\
 &= 0.6518 \\
 r_{1812} \frac{0.086}{\max C18\{0.095\}} &= \frac{0.086}{0.095} \\
 &= 0.9052 \\
 r_{1912} \frac{0.044}{\max C19\{0.092\}} &= \frac{0.044}{0.092} \\
 &= 0.4782 \\
 r_{2012} \frac{9}{\max C20\{9\}} &= \frac{9}{9} = 1 \\
 r_{2112} \frac{0.53}{\max C21\{1\}} &= \frac{0.53}{1} = 0.53 \\
 r_{2212} \frac{0.014}{\max C22\{0.092\}} &= \frac{0.014}{0.092} \\
 &= 0.1521 \\
 r_{2312} \frac{3.2}{\max C23\{5\}} &= \frac{3.2}{5} = 0.64 \\
 r_{2412} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
 r_{2512} \frac{142}{\max C25\{400\}} &= \frac{142}{400} \\
 &= 0.355 \\
 r_{2612} \frac{0.013}{\max C26\{0.21\}} &= \frac{0.013}{0.21} \\
 &= 0.0619 \\
 r_{2712} \frac{0.026}{\max C27\{0.48\}} &= \frac{0.026}{0.48} \\
 &= 0.0541 \\
 r_{2812} \frac{0.039}{\max C28\{0.21\}} &= \frac{0.039}{0.21} \\
 &= 0.1857 \\
 r_{2912} \frac{0.069}{\max C29\{0.092\}} &= \frac{0.069}{0.092} \\
 &= 0.75 \\
 r_{3012} \frac{8}{\max C30\{9\}} &= \frac{8}{9} = 0.8888 \\
 r_{3112} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0
 \end{aligned}$$

$$r_{3212} \frac{0}{\max C32\{0\}} = \frac{0}{0} = 0$$

Proses normalisasi A13

$$r_{113} \frac{16}{\max C1\{33\}} = \frac{16}{33} = 0.4848$$

$$r_{213} \frac{11000}{\min C2\{2100\}} = \frac{11000}{2100} = 5.238$$

$$r_{313} \frac{220}{\max C3\{220\}} = \frac{220}{220} = 1$$

$$r_{413} \frac{11}{\max C4\{22\}} = \frac{11}{22} = 0.5$$

$$r_{513} \frac{6}{\max C5\{7\}} = \frac{6}{7} = 0.8571$$

$$r_{613} \frac{5}{\max C6\{11\}} = \frac{5}{11} = 0.4545$$

$$r_{713} \frac{0}{\max C7\{0.25\}} = \frac{0}{0.25} = 0$$

$$r_{813} \frac{0}{\max C8\{0.75\}} = \frac{0}{0.75} = 0$$

$$r_{913} \frac{2}{\max C9\{8\}} = \frac{2}{8} = 0.25$$

$$r_{1013} \frac{441}{\max C10\{1303\}} = \frac{441}{1303} = 0.3384$$

$$r_{1113} \frac{8}{\max C11\{9.1\}} = \frac{8}{9.1} = 0.8791$$

$$r_{1213} \frac{0.0010}{\max C12\{0.134\}} = \frac{0.0010}{0.134} = 0.0074$$

$$r_{1313} \frac{0.015}{\max C13\{0.21\}} = \frac{0.015}{0.21} = 0.0714$$

$$r_{1413} \frac{0.21}{\max C14\{0.38\}} = \frac{0.21}{0.38} = 0.5526$$

$$r_{1513} \frac{1.5}{\max C15\{1.7\}} = \frac{1.5}{1.7} = 0.8823$$

$$r_{1613} \frac{0.0017}{\max C16\{0.005\}} = \frac{0.0017}{0.005} = 0.344$$

$$r_{1713} \frac{179}{\max C17\{540\}} = \frac{179}{540} = 0.3314$$

$$r_{1813} \frac{0.062}{\max C18\{0.095\}} = \frac{0.062}{0.095} = 0.6526$$

$$r_{1913} \frac{0.046}{\max C19\{0.092\}} = \frac{0.046}{0.092} = 0.5$$

$$r_{2013} \frac{4.4}{\max C20\{9\}} = \frac{4.4}{9} = 0.4888$$

$$r_{2113} \frac{0.13}{\max C21\{1\}} = \frac{0.13}{1} = 0.13$$

$$r_{2213} \frac{0.074}{\max C22\{0.092\}} = \frac{0.074}{0.092} = 0.8043$$

$$r_{2313} \frac{2.8}{\max C23\{5\}} = \frac{2.8}{5} = 0.56$$

$$r_{2413} \frac{0}{\max C24\{0\}} = \frac{0}{0} = 0$$

$$r_{2513} \frac{296}{\max C25\{400\}} = \frac{296}{400} = 0.74$$

$$r_{2613} \frac{0.017}{\max C26\{0.21\}} = \frac{0.017}{0.21} = 0.0809$$

$$r_{2713} \frac{0.37}{\max C27\{0.48\}} = \frac{0.37}{0.48} = 0.7708$$

$$\begin{aligned}
r_{2813} \frac{0.019}{\max C28\{0.21\}} &= \frac{0.019}{0.21} \\
&= 0.0904 \\
r_{2913} \frac{0.092}{\max C29\{0.092\}} &= \frac{0.092}{0.092} \\
&= 1
\end{aligned}$$

$$\begin{aligned}
r_{3013} \frac{6.2}{\max C30\{9\}} &= \frac{6.2}{9} \\
&= 0.6888 \\
r_{3113} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3213} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A14

$$\begin{aligned}
r_{114} \frac{30}{\max C1\{33\}} &= \frac{30}{33} = 0.9090 \\
r_{214} \frac{6500}{\min C2\{2100\}} &= \frac{6500}{2100} \\
&= 3.0952 \\
r_{314} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{414} \frac{9}{\max C4\{22\}} &= \frac{9}{22} = 0.4090 \\
r_{514} \frac{5}{\max C5\{7\}} &= \frac{5}{7} = 0.7142 \\
r_{614} \frac{7}{\max C6\{11\}} &= \frac{7}{11} = 0.6363 \\
r_{714} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{814} \frac{0.25}{\max C8\{0.75\}} &= \frac{0.25}{0.75} = 0.3333 \\
r_{914} \frac{7}{\max C9\{8\}} &= \frac{7}{8} = 0.875 \\
r_{1014} \frac{517}{\max C10\{1303\}} &= \frac{517}{1303} \\
&= 0.3967 \\
r_{1114} \frac{8.7}{\max C11\{9.1\}} &= \frac{8.7}{9.1} \\
&= 0.9560 \\
r_{1214} \frac{0.02}{\max C12\{0.134\}} &= \frac{0.02}{0.134} \\
&= 0.1589 \\
r_{1314} \frac{0.018}{\max C13\{0.21\}} &= \frac{0.018}{0.21} \\
&= 0.0857
\end{aligned}$$

$$\begin{aligned}
r_{1414} \frac{0.28}{\max C14\{0.38\}} &= \frac{0.28}{0.38} \\
&= 0.7368 \\
r_{1514} \frac{1.7}{\max C15\{1.7\}} &= \frac{1.7}{1.7} = 1 \\
r_{1614} \frac{0.0016}{\max C16\{0.005\}} &= \frac{0.0016}{0.005} \\
&= 0.328 \\
r_{1714} \frac{280}{\max C17\{540\}} &= \frac{280}{540} \\
&= 0.5185 \\
r_{1814} \frac{0.057}{\max C18\{0.095\}} &= \frac{0.057}{0.095} \\
&= 0.6 \\
r_{1914} \frac{0.074}{\max C19\{0.092\}} &= \frac{0.074}{0.092} \\
&= 0.8043 \\
r_{2014} \frac{7}{\max C20\{9\}} &= \frac{7}{9} = 0.7777 \\
r_{2114} \frac{0.71}{\max C21\{1\}} &= \frac{0.71}{1} = 0.71 \\
r_{2214} \frac{0.083}{\max C22\{0.092\}} &= \frac{0.083}{0.092} \\
&= 0.9021 \\
r_{2314} \frac{2.6}{\max C23\{5\}} &= \frac{2.6}{5} = 0.52 \\
r_{2414} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{2514} \frac{196}{\max C25\{400\}} &= \frac{196}{400} \\
&= 0.49
\end{aligned}$$

$$\begin{aligned}
r_{2614} \frac{0.02}{\max C26\{0.21\}} &= \frac{0.02}{0.21} \\
&= 0.0952 \\
r_{2714} \frac{0.48}{\max C27\{0.48\}} &= \frac{0.48}{0.48} = 1 \\
r_{2814} \frac{0.026}{\max C28\{0.21\}} &= \frac{0.026}{0.21} \\
&= 0.1238
\end{aligned}
\quad
\begin{aligned}
r_{2914} \frac{0.074}{\max C29\{0.092\}} &= \frac{0.074}{0.092} \\
&= 0.8043 \\
r_{3014} \frac{2.2}{\max C30\{9\}} &= \frac{2.2}{9} \\
&= 0.2444 \\
r_{3114} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3214} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A15

$$\begin{aligned}
r_{115} \frac{10}{\max C1\{33\}} &= \frac{10}{33} = 0.3030 \\
r_{215} \frac{8000}{\min C2\{2100\}} &= \frac{8000}{2100} \\
&= 3.8095 \\
r_{315} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{415} \frac{3}{\max C4\{22\}} &= \frac{3}{22} = 0.1363 \\
r_{515} \frac{4}{\max C5\{7\}} &= \frac{4}{7} = 0.5714 \\
r_{615} \frac{8}{\max C6\{11\}} &= \frac{8}{11} = 0.7272 \\
r_{715} \frac{0}{\max C7\{0.25\}} &= \frac{0}{0.25} = 0 \\
r_{815} \frac{0.25}{\max C8\{0.75\}} &= \frac{0.25}{0.75} = 0.3333 \\
r_{915} \frac{3}{\max C9\{8\}} &= \frac{3}{8} = 0.375 \\
r_{1015} \frac{801}{\max C10\{1303\}} &= \frac{801}{1303} \\
&= 0.6147 \\
r_{1115} \frac{5.8}{\max C11\{9.1\}} &= \frac{5.8}{9.1} \\
&= 0.6373 \\
r_{1215} \frac{0.13}{\max C12\{0.134\}} &= \frac{0.13}{0.134} \\
&= 1
\end{aligned}$$

$$\begin{aligned}
r_{1315} \frac{0.019}{\max C13\{0.21\}} &= \frac{0.019}{0.21} \\
&= 0.090 \\
r_{1415} \frac{0.38}{\max C14\{0.38\}} &= \frac{0.38}{0.38} = 1 \\
r_{1515} \frac{1.22}{\max C15\{1.7\}} &= \frac{1.22}{1.7} \\
&= 0.7176 \\
r_{1615} \frac{0.0026}{\max C16\{0.005\}} &= \frac{0.0026}{0.005} \\
&= 0.5 \\
r_{1715} \frac{540}{\max C17\{540\}} &= \frac{540}{540} = 1 \\
r_{1815} \frac{0.034}{\max C18\{0.095\}} &= \frac{0.034}{0.095} \\
&= 0.3578 \\
r_{1915} \frac{0.083}{\max C19\{0.092\}} &= \frac{0.083}{0.092} \\
&= 0.9021 \\
r_{2015} \frac{1}{\max C20\{9\}} &= \frac{1}{9} = 0.1111 \\
r_{2115} \frac{0.34}{\max C21\{1\}} &= \frac{0.34}{1} = 0.34 \\
r_{2215} \frac{0.049}{\max C22\{0.092\}} &= \frac{0.049}{0.092} \\
&= 0.5326 \\
r_{2315} \frac{4}{\max C23\{5\}} &= \frac{4}{5} = 0.8
\end{aligned}$$

$$\begin{aligned}
r_{2415} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{2515} \frac{124}{\max C25\{400\}} &= \frac{124}{400} \\
&= 0.31 \\
r_{2615} \frac{0.21}{\max C26\{0.21\}} &= \frac{0.21}{0.21} = 1 \\
r_{2715} \frac{0.39}{\max C27\{0.48\}} &= \frac{0.39}{0.48} \\
&= 0.8125 \\
r_{2815} \frac{0.21}{\max C28\{0.21\}} &= \frac{0.21}{0.21} = 1
\end{aligned}$$

Proses normalisasi A16

$$\begin{aligned}
r_{1116} \frac{0}{\max C1\{33\}} &= \frac{0}{33} = 0.9090 \\
r_{2116} \frac{9500}{\min C2\{2100\}} &= \frac{9500}{2100} \\
&= 4.5238 \\
r_{3116} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{4116} \frac{0}{\max C4\{22\}} &= \frac{0}{22} = 0.4090 \\
r_{5116} \frac{3}{\max C5\{7\}} &= \frac{3}{7} = 0.7142 \\
r_{6116} \frac{7}{\max C6\{11\}} &= \frac{7}{11} = 0.6363 \\
r_{7116} \frac{0.25}{\max C7\{0.25\}} &= \frac{0.25}{0.25} = 0 \\
r_{8116} \frac{0}{\max C8\{0.75\}} &= \frac{0}{0.75} = 0.3333 \\
r_{9116} \frac{4}{\max C9\{8\}} &= \frac{4}{8} = 0.875 \\
r_{10116} \frac{341}{\max C10\{1303\}} &= \frac{341}{1303} \\
&= 0.3967 \\
r_{11116} \frac{7.7}{\max C11\{9.1\}} &= \frac{7.7}{9.1} \\
&= 0.9560
\end{aligned}$$

$$\begin{aligned}
r_{2915} \frac{0.089}{\max C29\{0.092\}} &= \frac{0.089}{0.092} \\
&= 0.9674 \\
r_{3015} \frac{5}{\max C30\{9\}} &= \frac{5}{9} = 0.5556 \\
r_{3115} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3215} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

$$\begin{aligned}
r_{1216} \frac{0.001}{\max C12\{0.134\}} &= \frac{0.001}{0.134} \\
&= 0.1589 \\
r_{1316} \frac{0.02}{\max C13\{0.21\}} &= \frac{0.02}{0.21} \\
&= 0.0857 \\
r_{1416} \frac{0.24}{\max C14\{0.38\}} &= \frac{0.24}{0.38} \\
&= 0.7368 \\
r_{1516} \frac{1.56}{\max C15\{1.7\}} &= \frac{1.56}{1.7} = 1 \\
r_{1616} \frac{0.0049}{\max C16\{0.005\}} &= \frac{0.0049}{0.005} \\
&= 0.328 \\
r_{1716} \frac{521}{\max C17\{540\}} &= \frac{521}{540} \\
&= 0.5185 \\
r_{1816} \frac{0.059}{\max C18\{0.095\}} &= \frac{0.059}{0.095} \\
&= 0.6 \\
r_{1916} \frac{0.049}{\max C19\{0.092\}} &= \frac{0.049}{0.092} \\
&= 0.8043
\end{aligned}$$

$$\begin{aligned}
r_{2016} \frac{2}{\max C20\{9\}} &= \frac{2}{9} = 0.7777 \\
r_{2116} \frac{0.9}{\max C21\{1\}} &= \frac{0.9}{1} = 0.71 \\
r_{2216} \frac{0.069}{\max C22\{0.092\}} &= \frac{0.069}{0.092} \\
&= 0.9021 \\
r_{2316} \frac{3.4}{\max C23\{5\}} &= \frac{3.4}{5} = 0.52 \\
r_{2416} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{2516} \frac{345}{\max C25\{400\}} &= \frac{345}{400} \\
&= 0.49 \\
r_{2616} \frac{0.021}{\max C26\{0.21\}} &= \frac{0.021}{0.21} \\
&= 0.0952
\end{aligned}$$

Proses normalisasi A17

$$\begin{aligned}
r_{117} \frac{13}{\max C1\{33\}} &= \frac{13}{33} = 0.3939 \\
r_{217} \frac{13600}{\min C2\{2100\}} &= \frac{13600}{2100} \\
&= 6.4671 \\
r_{317} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
r_{417} \frac{4}{\max C4\{22\}} &= \frac{4}{22} = 0.1818 \\
r_{517} \frac{3}{\max C5\{7\}} &= \frac{3}{7} = 0.4285 \\
r_{617} \frac{9}{\max C6\{11\}} &= \frac{9}{11} = 0.8181 \\
r_{717} \frac{0.25}{\max C7\{0.25\}} &= \frac{0.25}{0.25} = 1 \\
r_{817} \frac{0.25}{\max C8\{0.75\}} &= \frac{0.25}{0.75} \\
&= 0.3333 \\
r_{917} \frac{7}{\max C9\{8\}} &= \frac{7}{8} = 0.875
\end{aligned}$$

$$\begin{aligned}
r_{2716} \frac{0.01}{\max C27\{0.48\}} &= \frac{0.01}{0.48} = 1 \\
r_{2816} \frac{0.021}{\max C28\{0.21\}} &= \frac{0.021}{0.21} \\
&= 0.1238 \\
r_{2916} \frac{0.042}{\max C29\{0.092\}} &= \frac{0.042}{0.092} \\
&= 0.8043 \\
r_{3016} \frac{8}{\max C30\{9\}} &= \frac{8}{9} = 0.2444 \\
r_{3116} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3216} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

$$\begin{aligned}
r_{1017} \frac{1303}{\max C10\{1303\}} &= \frac{1303}{1303} \\
&= 1 \\
r_{1117} \frac{8.9}{\max C11\{9.1\}} &= \frac{8.9}{9.1} \\
&= 0.9780 \\
r_{1217} \frac{0.047}{\max C12\{0.134\}} &= \frac{0.047}{0.134} \\
&= 0.3507 \\
r_{1317} \frac{0.21}{\max C13\{0.21\}} &= \frac{0.21}{0.21} = 1 \\
r_{1417} \frac{0.134}{\max C14\{0.38\}} &= \frac{0.134}{0.38} \\
&= 0.3526 \\
r_{1517} \frac{1.7}{\max C15\{1.7\}} &= \frac{1.7}{1.7} = 1 \\
r_{1617} \frac{0.0038}{\max C16\{0.005\}} &= \frac{0.0038}{0.005} \\
&= 0.76 \\
r_{1717} \frac{535}{\max C17\{540\}} &= \frac{535}{540} \\
&= 0.9907
\end{aligned}$$

$$\begin{aligned}
r_{1817} \frac{0.029}{\max C18\{0.095\}} &= \frac{0.029}{0.095} \\
&= 0.3052 \\
r_{1917} \frac{0.069}{\max C19\{0.092\}} &= \frac{0.069}{0.092} \\
&= 0.75 \\
r_{2017} \frac{6}{\max C20\{9\}} &= \frac{6}{9} = 0.6666 \\
r_{2117} \frac{0.6}{\max C21\{1\}} &= \frac{0.6}{1} = 0.6 \\
r_{2217} \frac{0.092}{\max C22\{0.092\}} &= \frac{0.092}{0.092} \\
&= 1 \\
r_{2317} \frac{4.6}{\max C23\{5\}} &= \frac{4.6}{5} = 0.92 \\
r_{2417} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
r_{2517} \frac{222}{\max C25\{400\}} &= \frac{222}{400} = 0.555
\end{aligned}$$

$$\begin{aligned}
r_{2617} \frac{0.024}{\max C26\{0.21\}} &= \frac{0.024}{0.21} \\
&= 0.1142 \\
r_{2717} \frac{0.21}{\max C27\{0.48\}} &= \frac{0.21}{0.48} \\
&= 0.4375 \\
r_{2817} \frac{0.024}{\max C28\{0.21\}} &= \frac{0.024}{0.21} \\
&= 0.1142 \\
r_{2917} \frac{0.044}{\max C29\{0.092\}} &= \frac{0.044}{0.092} \\
&= 0.4782 \\
r_{3017} \frac{5}{\max C30\{9\}} &= \frac{5}{9} = 0.5555 \\
r_{3117} \frac{0}{\max C31\{0\}} &= \frac{0}{0} = 0 \\
r_{3217} \frac{0}{\max C32\{0\}} &= \frac{0}{0} = 0
\end{aligned}$$

Proses normalisasi A18

$$r_{118} \frac{15}{\max C1\{33\}} = \frac{15}{33} = 0.4545$$

$$r_{218} \frac{13900}{\min C2\{2100\}} = \frac{13900}{2100} = 6.619$$

$$r_{318} \frac{220}{\max C3\{220\}} = \frac{220}{220} = 1$$

$$r_{418} \frac{10}{\max C4\{22\}} = \frac{10}{22} = 0.4545$$

$$r_{518} \frac{2}{\max C5\{7\}} = \frac{2}{7} = 0.2857$$

$$r_{618} \frac{7}{\max C6\{11\}} = \frac{7}{11} = 0.6363$$

$$r_{718} \frac{0}{\max C7\{0.25\}} = \frac{0}{0.25} = 0$$

$$r_{818} \frac{0}{\max C8\{0.75\}} = \frac{0}{0.75} = 0$$

$$r_{918} \frac{5}{\max C9\{8\}} = \frac{5}{8} = 0.625$$

$$r_{1018} \frac{412}{\max C10\{1303\}} = \frac{412}{1303} = 0.3161$$

$$r_{1118} \frac{6.7}{\max C11\{9.1\}} = \frac{6.7}{9.1} = 0.7362$$

$$r_{1218} \frac{0.021}{\max C12\{0.134\}} = \frac{0.021}{0.134} = 0.1567$$

$$r_{1318} \frac{0.021}{\max C13\{0.21\}} = \frac{0.021}{0.21} = 0.1$$

$$r_{1418} \frac{0.033}{\max C14\{0.38\}} = \frac{0.033}{0.38} = 0.0868$$

$$r_{1518} \frac{1.1}{\max C15\{1.7\}} = \frac{1.1}{1.7} = 0.6470$$

$$r_{1618} \frac{0.0044}{\max C16\{0.005\}} = \frac{0.0044}{0.005} = 0.88$$

$$r_{1718} \frac{390}{\max C17\{540\}} = \frac{390}{540} = 0.7222$$

$$r_{1818} \frac{0.085}{\max C18\{0.095\}} = \frac{0.085}{0.095} = 0.8947$$

$$r_{1918} \frac{0.092}{\max C19\{0.092\}} = \frac{0.092}{0.092} = 1$$

$$r_{2018} \frac{5}{\max C20\{9\}} = \frac{5}{9} = 0.5555$$

$$r_{2118} \frac{0.43}{\max C21\{1\}} = \frac{0.43}{1} = 0.43$$

$$r_{2218} \frac{0.074}{\max C22\{0.092\}} = \frac{0.074}{0.092} = 0.8043$$

$$r_{2318} \frac{4.3}{\max C23\{5\}} = \frac{4.3}{5} = 0.86$$

$$r_{2418} \frac{0}{\max C24\{0\}} = \frac{0}{0} = 0$$

$$r_{2518} \frac{211}{\max C25\{400\}} = \frac{211}{400} = 0.5275$$

$$r_{2618} \frac{0.05}{\max C26\{0.21\}} = \frac{0.05}{0.21} = 0.2380$$

$$r_{2718} \frac{0.13}{\max C27\{0.48\}} = \frac{0.13}{0.48} = 0.2708$$

$$r_{2818} \frac{0.05}{\max C28\{0.21\}} = \frac{0.05}{0.21} = 0.2380$$

$$r_{2918} \frac{0.046}{\max C29\{0.092\}} = \frac{0.046}{0.092} = 0.5$$

$$r_{3018} \frac{4}{\max C30\{9\}} = \frac{4}{9} = 0.4444$$

$$r_{3118} \frac{0}{\max C31\{0\}} = \frac{0}{0} = 0$$

$$r_{3218}\frac{0}{\mathrm{maxC32}\{0\}}=\frac{0}{0}=0$$

Proses normalisasi A19

$$\begin{aligned}
 r_{119} \frac{2}{\max C1\{33\}} &= \frac{2}{33} = 0.0606 \\
 r_{219} \frac{30000}{\min C2\{2100\}} &= \frac{30000}{2100} \\
 &= 14.2857 \\
 r_{319} \frac{220}{\max C3\{220\}} &= \frac{220}{220} = 1 \\
 r_{419} \frac{0}{\max C4\{22\}} &= \frac{0}{22} = 0 \\
 r_{519} \frac{3}{\max C5\{7\}} &= \frac{3}{7} = 0.4285 \\
 r_{619} \frac{10}{\max C6\{11\}} &= \frac{10}{11} = 0.9090 \\
 r_{719} \frac{0.25}{\max C7\{0.25\}} &= \frac{0.25}{0.25} = 1 \\
 r_{819} \frac{0.25}{\max C8\{0.75\}} &= \frac{0.25}{0.75} \\
 &= 0.3333 \\
 r_{919} \frac{6}{\max C9\{8\}} &= \frac{6}{8} = 0.75 \\
 r_{1019} \frac{1103}{\max C10\{1303\}} &= \frac{1103}{1303} \\
 &= 0.8465 \\
 r_{1119} \frac{8.9}{\max C11\{9.1\}} &= \frac{8.9}{9.1} \\
 &= 0.9870 \\
 r_{1219} \frac{0.02}{\max C12\{0.134\}} &= \frac{0.02}{0.134} \\
 &= 0.1567 \\
 r_{1319} \frac{0.024}{\max C13\{0.21\}} &= \frac{0.024}{0.21} \\
 &= 0.1142 \\
 r_{1419} \frac{0.053}{\max C14\{0.38\}} &= \frac{0.053}{0.38} \\
 &= 0.1394 \\
 r_{1519} \frac{1.49}{\max C15\{1.7\}} &= \frac{1.49}{1.7} \\
 &= 0.8764
 \end{aligned}$$

$$\begin{aligned}
 r_{1619} \frac{0.0025}{\max C16\{0.005\}} &= \frac{0.0025}{0.005} \\
 &= 0.514 \\
 r_{1719} \frac{500}{\max C17\{540\}} &= \frac{500}{540} \\
 &= 0.9259 \\
 r_{1819} \frac{0.035}{\max C18\{0.095\}} &= \frac{0.035}{0.095} \\
 &= 0.3684 \\
 r_{1919} \frac{0.074}{\max C19\{0.092\}} &= \frac{0.074}{0.092} \\
 &= 0.8043 \\
 r_{2019} \frac{9}{\max C20\{9\}} &= \frac{9}{9} = 1 \\
 r_{2119} \frac{0.37}{\max C21\{1\}} &= \frac{0.37}{1} = 0.37 \\
 r_{2219} \frac{0.021}{\max C22\{0.092\}} &= \frac{0.021}{0.092} \\
 &= 0.2282 \\
 r_{2319} \frac{1}{\max C23\{5\}} &= \frac{1}{5} = 0.2 \\
 r_{2419} \frac{0}{\max C24\{0\}} &= \frac{0}{0} = 0 \\
 r_{2519} \frac{300}{\max C25\{400\}} &= \frac{300}{400} \\
 &= 0.75 \\
 r_{2619} \frac{0.01}{\max C26\{0.21\}} &= \frac{0.01}{0.21} \\
 &= 0.0476 \\
 r_{2719} \frac{0.17}{\max C27\{0.48\}} &= \frac{0.17}{0.48} \\
 &= 0.3541 \\
 r_{2819} \frac{0.01}{\max C28\{0.21\}} &= \frac{0.01}{0.21} \\
 &= 0.0476 \\
 r_{2919} \frac{0.074}{\max C29\{0.092\}} &= \frac{0.074}{0.092} \\
 &= 0.8043
 \end{aligned}$$

$$r_{30^{19}}\frac{2.9}{\max\mathrm{C30}\{9\}}=\frac{2.9}{9}=0.3222$$

$$r_{31^{19}}\frac{0}{\max\mathrm{C31}\{0\}}=\frac{0}{0}=0$$

$$r_{32^{19}}\frac{0}{\max\mathrm{C32}\{0\}}=\frac{0}{0}=0$$

Hasil Normalisasi

Menghitung nilai Vi pada setiap alternatif

$$\begin{aligned}
V_1 &= (1)(0.20) + (5.7142)(0.1) + (1)(0.06) + (1)(0.10) + (0.5714)(0.02) + (0.5454)(0.02) + (0)(0.02) + \\
&\quad (0.3333)(0.02) + (0.375)(0.02) + (0.6009)(0.02) + (0.7032)(0.02) + (0.0074)(0.02) + (0.2380)(0.02) + \\
&\quad (0.3421)(0.02) + (0.8647)(0.02) + (0.8647)(0.02) + (1)(0.02) + (0.9259)(0.02) + (0.2631)(0.02) + \\
&\quad (0.2282)(0.02) + (0.6444)(0.02) + (0.1)(0.02) + (0.4565)(0.02) + (1)(0.02) + (0)(0.02) + (1)(0.02) + \\
&\quad (0.1238)(0.02) + (0.5416)(0.02) + (0.2380)(0.02) + (0.1521)(0.02) + (0.6666)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) \\
&= 0.2 + 0.5174 + 0.06 + 0.1 + 0.0114 + 0.0109 + 0 + 0.0066 + 0.0075 + 0.0120 + 0.0140 + 0.0001 + \\
&\quad 0.0047 + 0.0068 + 0.0172 + 0.02 + 0.0185 + 0.0052 + 0.0045 + 0.0128 + 0.02 + 0.0091 + 0.2 + 0 + 0.02 \\
&\quad + 0.0025 + 0.0108 + 0.0048 + 0.003 + 0.0133 + 0 + 0 \\
&= 1.188 \\
V_2 &= (0.0606)(0.20) + (2.6666)(0.1) + (1)(0.06) + (0.0454)(0.10) + (0.4285)(0.02) + (0.3636)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) + (0.625)(0.02) + (0.4159)(0.02) + (0.7912)(0.02) + (0.01)(0.02) + \\
&\quad (0.1238)(0.02) + (0.1184)(0.02) + (0.7823)(0.02) + (0.728)(0.02) + (0.4944)(0.02) + (0.6210)(0.02) + \\
&\quad (0.9673)(0.02) + (0.8888)(0.02) + (0.5)(0.02) + (0.2826)(0.02) + (0.5)(0.02) + (0)(0.02) + \\
&\quad (0.4925)(0.02) + (0.1761)(0.02) + (0.3125)(0.02) + (0.0714)(0.02) + (0.2826)(0.02) + (0.8888)(0.02) \\
&\quad + (0)(0.02) + (0)(0.02) \\
&= 0.012 + 0.2666 + 0.06 + 0.004 + 0.0085 + 0.0072 + 0 + 0 + 0.0125 + 0.0831 + 0.0158 + 0.0002 + \\
&\quad 0.0024 + 0.0024 + 0.0156 + 0.0145 + 0.0098 + 0.0124 + 0.0193 + 0.0177 + 0.01 + 0.0057 + 0.01 + 0 + \\
&\quad 0.0099 + 0.0035 + 0.0063 + 0.0014 + 0.0057 + 0.0178 + 0 + 0 \\
&= 0.561 \\
V_3 &= (0.0909)(0.20) + (8)(0.1) + (1)(0.06) + (0.1363)(0.10) + (0.7142)(0.02) + (0.9090)(0.02) + (1)(0.02) + \\
&\quad (0.3333)(0.02) + (0.75)(0.02) + (0.8319)(0.02) + (0.7472)(0.02) + (0.0820)(0.02) + (0.1761)(0.02) + \\
&\quad (0.1394)(0.02) + (0.5882)(0.02) + (0.902)(0.02) + (0.8166)(0.02) + (1)(0.02) + (0.4565)(0.02) + \\
&\quad (0.6888)(0.02) + (0.76)(0.02) + (0.5978)(0.02) + (0.76)(0.02) + (0)(0.02) + (0.94)(0.02) + \\
&\quad (0.2285)(0.02) + (0.375)(0.02) + (0.0904)(0.02) + (0.5978)(0.02) + (1)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.0182 + 0.8 + 0.06 + 0.0136 + 0.0142 + 0.0181 + 0.02 + 0.0666 + 0.015 + 0.0166 + 0.0149 + 0.0016 + \\
&\quad 0.0035 + 0.0027 + 0.0117 + 0.0180 + 0.0163 + 0.02 + 0.0091 + 0.0137 + 0.0152 + 0.012 + 0.0152 + 0 \\
&\quad + 0.0188 + 0.0046 + 0.0075 + 0.0018 + 0.0012 + 0.02 + 0 + 0 \\
&= 1.202 \\
V_4 &= (0.2727)(0.20) + (3.2857)(0.1) + (1)(0.06) + (0.3636)(0.10) + (0.2857)(0.02) + (0.4545)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) + (0.5)(0.02) + (0.6139)(0.02) + (0.7252)(0.02) + (0.3059)(0.02) + \\
&\quad (0.2285)(0.02) + (0.2342)(0.02) + (0.6588)(0.02) + (0.452)(0.02) + (0.8851)(0.02) + (0.7157)(0.02) + \\
&\quad (0.6304)(0.02) + (0.2444)(0.02) + (0.8)(0.02) + (0.9891)(0.02) + (0.8)(0.02) + (0)(0.02) + \\
&\quad (0.42)(0.02) + (0.1857)(0.02) + (0.3958)(0.02) + (0.0476)(0.02) + (0.4782)(0.02) + (0.4888)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) \\
&= 0.0545 + 0.3285 + 0.06 + 0.0364 + 0.0057 + 0.0091 + 0 + 0 + 0.01 + 0.0123 + 0.0145 + 0.0061 + \\
&\quad 0.0046 + 0.0047 + 0.0132 + 0.009 + 0.0177 + 0.0143 + 0.0126 + 0.0049 + 0.016 + 0.0198 + 0.016 + 0 \\
&\quad + 0.0084 + 0.0037 + 0.0079 + 0.001 + 0.0096 + 0.0098 + 0 + 0 \\
&= 0.71 \\
V_5 &= (0.1818)(0.20) + (3)(0.1) + (1)(0.06) + (0.2727)(0.10) + (0.7142)(0.02) + (0.4545)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) + (0.75)(0.02) + (0.5103)(0.02) + (0.8021)(0.02) + (0.0074)(0.02) + (0.1857)(0.02) + \\
&\quad (0.2026)(0.02) + (0.7411)(0.02) + (0.274)(0.02) + (0.3851)(0.02) + (0.5684)(0.02) + (0.7934)(0.02) + \\
&\quad (1)(0.02) + (0.1195)(0.02) + (1)(0.02) + (0)(0.02) + (1)(0.02) + (0.0904)(0.02) + (0.4583)(0.02) + \\
&\quad (0.1)(0.02) + (1)(0.02) + (0.5)(0.02) + (0.7777)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.0364 + 0.3 + 0.06 + 0.273 + 0.143 + 0.0091 + 0 + 0 + 0.015 + 0.0102 + 0.016 + 0.0001 + 0.0037 + \\
&\quad 0.0041 + 0.0148 + 0.0055 + 0.0077 + 0.0114 + 0.0159 + 0.0111 + 0.02 + 0.0024 + 0.02 + 0 + 0.2 + \\
&\quad 0.0018 + 0.0092 + 0.002 + 0.01 + 0.0156 + 0 + 0 \\
&= 0.663 \\
V_6 &= (0.2424)(0.20) + (1.1904)(0.1) + (1)(0.06) + (0.2727)(0.10) + (0.2857)(0.02) + (0.3636)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) + (0.5)(0.02) + (0.3867)(0.02) + (0.7582)(0.02) + (0.0419)(0.02) + \\
&\quad (0.0476)(0.02) + (0.0815)(0.02) + (0.7941)(0.02) + (0.966)(0.02) + (0.7037)(0.02) + (0.7052)(0.02) + \\
&\quad (0.9565)(0.02) + (0.8888)(0.02) + (0.81)(0.02) + (0.4782)(0.02) + (0.2)(0.02) + (0)(0.02) + \\
&\quad (0.78)(0.02) + (0.1238)(0.02) + (0.9583)(0.02) + (0.1047)(0.02) + (0.8043)(0.02) + (0.1111)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) \\
&= 0.0485 + 0.1194 + 0.06 + 0.0273 + 0.0057 + 0.0073 + 0 + 0 + 0.01 + 0.0077 + 0.0152 + 0.0008 + 0.001 \\
&\quad + 0.0016 + 0.0159 + 0.0193 + 0.0141 + 0.0141 + 0.0191 + 0.0178 + 0.0162 + 0.096 + 0.004 + 0 + 0.156 \\
&\quad + 0.0025 + 0.0192 + 0.0021 + 0.0161 + 0.0022 + 0 + 0 \\
&= 0.492
\end{aligned}$$

$$\begin{aligned}
V_7 &= (0.2121)(0.20) + (2.4285)(0.1) + (1)(0.06) + (0.1818)(0.10) + (0.5714)(0.02) + (0.5454)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) + (0.25)(0.02) + (0.6462)(0.02) + (0.7142)(0.02) + (0.0330)(0.02) + (0.1)(0.02) \\
&\quad + (0.2894)(0.02) + (0.7235)(0.02) + (0.53)(0.02) + (0.9259)(0.02) + (0.7684)(0.02) + (0.1521)(0.02) \\
&\quad + (0.5555)(0.02) + (0.91)(0.02) + (0.5)(0.02) + (0.7)(0.02) + (0)(0.02) + (0.63)(0.02) + (0.0714)(0.02) \\
&\quad + (0.4375)(0.02) + (0.0619)(0.02) + (0.9021)(0.02) + (0.2222)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.0424 + 0.2428 + 0.06 + 0.0182 + 0.0114 + 0.0109 + 0 + 0 + 0.005 + 0.0129 + 0.0143 + 0.0007 + \\
&\quad 0.002 + 0.0058 + 0.0145 + 0.0106 + 0.0185 + 0.0154 + 0.003 + 0.0111 + 0.0182 + 0.01 + 0.014 + 0 + \\
&\quad 0.0126 + 0.0014 + 0.0088 + 0.0012 + 0.0018 + 0.0044 + 0 + 0 \\
&= 0.588 \\
V_8 &= (0.0303)(0.20) + (1)(0.1) + (1)(0.06) + (0)(0.10) + (0.5714)(0.02) + (0.4545)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) + (0.5)(0.02) + (0.3622)(0.02) + (0.7362)(0.02) + (0.0441)(0.02) + (0.1047)(0.02) + \\
&\quad (0.5526)(0.02) + (0.7647)(0.02) + (0.356)(0.02) + (0.6018)(0.02) + (0.9052)(0.02) + (0.2826)(0.02) + \\
&\quad (0.4444)(0.02) + (0.77)(0.02) + (0.4565)(0.02) + (0.4)(0.02) + (0)(0.02) + (0.85)(0.02) + \\
&\quad (0.0904)(0.02) + (0.5)(0.02) + (0.0809)(0.02) + (0.5326)(0.02) + (0.6666)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) \\
&= 0.0061 + 0.1 + 0.06 + 0 + 0.0114 + 0.0091 + 0 + 0 + 0.01 + 0.0072 + 0.0147 + 0.0009 + 0.0021 + \\
&\quad 0.0111 + 0.0153 + 0.0071 + 0.012 + 0.0181 + 0.0057 + 0.0089 + 0.0154 + 0.0091 + 0.008 + 0 + 0.0172 \\
&\quad + 0.0018 + 0.01 + 0.0016 + 0.0107 + 0.0133 + 0 + 0 \\
&= 0.387 \\
V_9 &= (0)(0.20) + (4.4285)(0.1) + (1)(0.06) + (0)(0.10) + (1)(0.02) + (0.6363)(0.02) + (0)(0.02) + (0)(0.02) \\
&\quad + (0.625)(0.02) + (0.5786)(0.02) + (0.7912)(0.02) + (0.0171)(0.02) + (0.0619)(0.02) + (0.7894)(0.02) \\
&\quad + (0.6764)(0.02) + (0.278)(0.02) + (0.5370)(0.02) + (0.8631)(0.02) + (0.5978)(0.02) + (0.3222)(0.02) \\
&\quad + (0.56)(0.02) + (0.6304)(0.02) + (0.8)(0.02) + (0)(0.02) + (0.305)(0.02) + (0.0476)(0.02) + \\
&\quad (0.2708)(0.02) + (0.1238)(0.02) + (0.6304)(0.02) + (0.5555)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0 + 0.4428 + 0.06 + 0 + 0.02 + 0.0127 + 0 + 0 + 0.0125 + 0.0116 + 0.0158 + 0.0003 + 0.0012 + 0.0158 \\
&\quad + 0.0135 + 0.0056 + 0.0107 + 0.0173 + 0.012 + 0.0064 + 0.0112 + 0.0126 + 0.016 + 0 + 0.0061 + 0.001 \\
&\quad + 0.0054 + 0.0025 + 0.0126 + 0.0111 + 0 + 0 \\
&= 0.737 \\
V_{10} &= (0.6666)(0.20) + (4.1904)(0.1) + (1)(0.06) + (0.4090)(0.10) + (0.4285)(0.02) + (1)(0.02) + (1)(0.02) + \\
&\quad (1)(0.02) + (1)(0.02) + (0.3994)(0.02) + (1)(0.02) + (0.8313)(0.02) + (0.0809)(0.02) + (0.8157)(0.02) \\
&\quad + (0.9411)(0.02) + (0.456)(0.02) + (0.95)(0.02) + (1)(0.02) + (0.9891)(0.02) + (0.6666)(0.02) + \\
&\quad (0.95)(0.02) + (0.7935)(0.02) + (0.28)(0.02) + (0)(0.02) + (1)(0.02) + (0.1)(0.02) + (0.0354)(0.02) + \\
&\quad (0.1762)(0.02) + (0.7935)(0.02) + (1)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.1333 + 0.4180 + 0.06 + 0.0409 + 0.0086 + 0.02 + 0.02 + 0.02 + 0.02 + 0.008 + 0.02 + 0.0166 + 0.0016 \\
&\quad + 0.0163 + 0.0188 + 0.0091 + 0.0019 + 0.02 + 0.0198 + 0.0133 + 0.19 + 0.159 + 0.0056 + 0 + 0.02 + \\
&\quad 0.002 + 0.0007 + 0.0035 + 0.0159 + 0 + 0 \\
&= 1.007 \\
V_{11} &= (0.3939)(0.20) + (1)(0.1) + (1)(0.06) + (0.4090)(0.10) + (0.287)(0.02) + (0.8181)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) + (0.375)(0.02) + (0.5034)(0.02) + (0.6483)(0.02) + (0.1593)(0.02) + (0.0904)(0.02) + \\
&\quad (0.3684)(0.02) + (0.8588)(0.02) + (0.69)(0.02) + (0.8037)(0.02) + (0.1157)(0.02) + (0.1195)(0.02) + \\
&\quad (0.8888)(0.02) + (0.84)(0.02) + (0.9565)(0.02) + (0.8)(0.02) + (0)(0.02) + (0.675)(0.02) + \\
&\quad (0.1048)(0.02) + (0.0396)(0.02) + (0.2286)(0.02) + (0.9565)(0.02) + (0.6444)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) \\
&= 0.0788 + 0.1 + 0.06 + 0.0409 + 0.0057 + 0.0164 + 0 + 0 + 0.0075 + 0.0101 + 0.013 + 0.0032 + 0.0018 \\
&\quad + 0.0074 + 0.0172 + 0.0138 + 0.0161 + 0.0023 + 0.0024 + 0.0178 + 0.0168 + 0.0191 + 0.016 + 0 + \\
&\quad 0.0135 + 0.0021 + 0.0008 + 0.0046 + 0.0191 + 0.0129 + 0 + 0 \\
&= 0.519 \\
V_{12} &= (0.0606)(0.20) + (7)(0.1) + (1)(0.06) + (0.0909)(0.10) + (0.7142)(0.02) + (0.7272)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) + (0.5)(0.02) + (0.3584)(0.02) + (0.8351)(0.02) + (0.5298)(0.02) + (0.1238)(0.02) + \\
&\quad (0.4736)(0.02) + (0.8470)(0.02) + (0.986)(0.02) + (0.6518)(0.02) + (0.9052)(0.02) + (0.4782)(0.02) + \\
&\quad (1)(0.02) + (0.53)(0.02) + (0.1522)(0.02) + (0.64)(0.02) + (0)(0.02) + (0.355)(0.02) + (0.0619)(0.02) \\
&\quad + (0.0542)(0.02) + (0.1857)(0.02) + (0.75)(0.02) + (0.8889)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.0121 + 0.7 + 0.06 + 0.0091 + 0.0143 + 0.0145 + 0 + 0 + 0.01 + 0.0072 + 0.0167 + 0.0106 + 0.0025 + \\
&\quad 0.0095 + 0.0169 + 0.0194 + 0.013 + 0.0181 + 0.0096 + 0.02 + 0.0106 + 0.003 + 0.0128 + 0 + 0.0071 + \\
&\quad 0.0012 + 0.0011 + 0.0037 + 0.0015 + 0.0178 + 0 + 0 \\
&= 1.036 \\
V_{13} &= (0.4848)(0.20) + (5.238)(0.1) + (1)(0.06) + (0.5)(0.10) + (0.8571)(0.02) + (0.4545)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) + (0.25)(0.02) + (0.3384)(0.02) + (0.8791)(0.02) + (0.0074)(0.02) + (0.0714)(0.02) + \\
&\quad (0.5526)(0.02) + (0.8823)(0.02) + (0.344)(0.02) + (0.3314)(0.02) + (0.6526)(0.02) + (0.5)(0.02) + \\
&\quad (0.4888)(0.02) + (0.13)(0.02) + (0.8043)(0.02) + (0.56)(0.02) + (0)(0.02) + (0.74)(0.02) + \\
&\quad (0.081)(0.02) + (0.7708)(0.02) + (0.0905)(0.02) + (1)(0.02) + (0.6889)(0.02) + (0)(0.02) + (0)(0.02)
\end{aligned}$$

$$\begin{aligned}
&= 0.097 + 0.5238 + 0.06 + 0.05 + 0.0171 + 0.0091 + 0 + 0 + 0.005 + 0.0068 + 0.0176 + 0.0001 + 0.0014 \\
&\quad + 0.0111 + 0.0176 + 0.0069 + 0.0066 + 0.0131 + 0.01 + 0.0098 + 0.0026 + 0.0161 + 0.0112 + 0 + 0.148 \\
&\quad + 0.0016 + 0.0154 + 0.0018 + 0.02 + 0.0138 + 0 + 0 \\
&= 0.96 \\
V_{14} &= (0.9090)(0.20) + (3.0952)(0.1) + (1)(0.06) + (0.4090)(0.10) + (0.7142)(0.02) + (0.6363)(0.02) + \\
&\quad (0)(0.02) + (0.3333)(0.02) + (0.875)(0.02) + (0.3967)(0.02) + (0.9650)(0.02) + (0.1589)(0.02) + \\
&\quad (0.0857)(0.02) + (0.7368)(0.02) + (1)(0.02) + (0.328)(0.02) + (0.5185)(0.02) + (0.6)(0.02) + \\
&\quad (0.8043)(0.02) + (0.7777)(0.02) + (0.71)(0.02) + (0.9022)(0.02) + (0.52)(0.02) + (0)(0.02) + \\
&\quad (0.49)(0.02) + (0.0952)(0.02) + (1)(0.02) + (0.1238)(0.02) + (0.8043)(0.02) + (0.2444)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) \\
&= 0.1818 + 0.3095 + 0.06 + 0.0409 + 0.0143 + 0.0127 + 0 + 0.0067 + 0.0175 + 0.0079 + 0.0191 + 0.0032 \\
&\quad + 0.0017 + 0.0147 + 0.02 + 0.0066 + 0.0104 + 0.012 + 0.0161 + 0.0156 + 0.0142 + 0.018 + 0.0104 + 0 \\
&\quad + 0.0098 + 0.0019 + 0.002 + 0.0025 + 0.0161 + 0.0049 + 0 + 0 \\
&= 0.868 \\
V_{15} &= (0.3030)(0.20) + (3.8095)(0.1) + (1)(0.06) + (0.1363)(0.10) + (0.5714)(0.02) + (0.7272)(0.02) + \\
&\quad (0)(0.02) + (0.3333)(0.02) + (0.335)(0.02) + (0.6147)(0.02) + (0.6373)(0.02) + (1)(0.02) + \\
&\quad (0.0904)(0.02) + (1)(0.02) + (0.7176)(0.02) + (0.52)(0.02) + (1)(0.02) + (0.357)(0.02) + \\
&\quad (0.9021)(0.02) + (0.1111)(0.02) + (0.34)(0.02) + (0.5326)(0.02) + (0.8)(0.02) + (0)(0.02) + \\
&\quad (0.31)(0.02) + (1)(0.02) + (0.8125)(0.02) + (1)(0.02) + (0.9674)(0.02) + (0.5556)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) \\
&= 0.0606 + 0.3809 + 0.06 + 0.0136 + 0.0114 + 0.0145 + 0 + 0.0067 + 0.0075 + 0.0123 + 0.0127 + 0.02 + \\
&\quad 0.0018 + 0.02 + 0.0144 + 0.0104 + 0.02 + 0.0072 + 0.018 + 0.0022 + 0.0068 + 0.0107 + 0.016 + 0 + \\
&\quad 0.0062 + 0.02 + 0.0163 + 0.02 + 0.0193 + 0.0111 + 0 + 0 \\
&= 0.82 \\
V_{16} &= (0)(0.20) + (4.5238)(0.1) + (1)(0.06) + (0)(0.10) + (0.4285)(0.02) + (0.6363)(0.02) + (1)(0.02) + \\
&\quad (0)(0.02) + (0.5)(0.02) + (0.2617)(0.02) + (0.8461)(0.02) + (0.0074)(0.02) + (0.0952)(0.02) + \\
&\quad (0.6315)(0.02) + (0.9176)(0.02) + (0.998)(0.02) + (0.9648)(0.02) + (0.6210)(0.02) + (0.532)(0.02) + \\
&\quad (0.2222)(0.02) + (0.9)(0.02) + (0.75)(0.02) + (0.68)(0.02) + (0)(0.02) + (0.8625)(0.02) + (0.1)(0.02) + \\
&\quad (0.0208)(0.02) + (0.1)(0.02) + (0.4565)(0.02) + (0.8889)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0 + 0.4523 + 0.06 + 0 + 0.0086 + 0.0127 + 0.2 + 0 + 0.01 + 0.0052 + 0.0169 + 0.0001 + 0.0019 + \\
&\quad 0.00126 + 0.0184 + 0.02 + 0.0193 + 0.0124 + 0.0107 + 0.0044 + 0.018 + 0.015 + 0.0136 + 0 + 0.173 + \\
&\quad 0.002 + 0.0004 + 0.002 + 0.0091 + 0.0178 + 0.0178 + 0 + 0 \\
&= 0.781 \\
V_{17} &= (0.3939)(0.20) + (6.4761)(0.1) + (1)(0.06) + (0.1818)(0.10) + (0.4285)(0.02) + (0.8181)(0.02) + \\
&\quad (1)(0.02) + (0.3333)(0.02) + (0.875)(0.02) + (1)(0.02) + (0.9780)(0.02) + (0.3507)(0.02) + (1)(0.02) + \\
&\quad (0.3562)(0.02) + (1)(0.02) + (0.276)(0.02) + (0.9907)(0.02) + (0.3052)(0.02) + (0.75)(0.02) + \\
&\quad (0.6666)(0.02) + (0.6)(0.02) + (1)(0.02) + (0.92)(0.02) + (0)(0.02) + (0.555)(0.02) + (0.1143)(0.02) + \\
&\quad (0.4375)(0.02) + (0.1143)(0.02) + (0.4783)(0.02) + (0.5556)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.0788 + 0.6476 + 0.06 + 0.0182 + 0.0086 + 0.0164 + 0.02 + 0.0067 + 0.0175 + 0.02 + 0.0196 + 0.0007 \\
&\quad + 0.02 + 0.0071 + 0.002 + 0.0152 + 0.0198 + 0.0061 + 0.015 + 0.0133 + 0.012 + 0.02 + 0.0184 + 0 + \\
&\quad 0.0111 + 0.0023 + 0.0088 + 0.0023 + 0.0096 + 0.0111 + 0 + 0 \\
&= 1.132 \\
V_{18} &= (0.4545)(0.20) + (6.6190)(0.1) + (1)(0.06) + (0.4545)(0.10) + (0.2867)(0.02) + (0.6363)(0.02) + \\
&\quad (0)(0.02) + (0)(0.02) + (0.625)(0.02) + (0.316)(0.02) + (0.7362)(0.02) + (0.1567)(0.02) + (0.1)(0.02) + \\
&\quad (0.0868)(0.02) + (0.6470)(0.02) + (0.88)(0.02) + (0.7222)(0.02) + (0.8947)(0.02) + (1)(0.02) + \\
&\quad (0.5555)(0.02) + (0.43)(0.02) + (0.8043)(0.02) + (0.86)(0.02) + (0)(0.02) + (0.5275)(0.02) + \\
&\quad (0.2381)(0.02) + (0.2708)(0.02) + (0.2831)(0.02) + (0.5)(0.02) + (0.4444)(0.02) + (0)(0.02) + \\
&\quad (0)(0.02) \\
&= 0.0909 + 0.6619 + 0.06 + 0.0455 + 0.0057 + 0.0127 + 0 + 0 + 0.0125 + 0.0063 + 0.0147 + 0.0031 + \\
&\quad 0.002 + 0.0017 + 0.0129 + 0.0176 + 0.0144 + 0.0179 + 0.02 + 0.0111 + 0.0086 + 0.0161 + 0.0172 + 0 + \\
&\quad 0.0106 + 0.0048 + 0.0054 + 0.0048 + 0.01 + 0.0089 + 0 + 0 \\
&= 1.097 \\
V_{19} &= (0.0606)(0.20) + (14.2857)(0.1) + (1)(0.06) + (0)(0.10) + (0.4285)(0.02) + (0.9090)(0.02) + (1)(0.02) + \\
&\quad (0.3333)(0.02) + (0.75)(0.02) + (0.8645)(0.02) + (0.9780)(0.02) + (0.1567)(0.02) + (0.1142)(0.02) + \\
&\quad (0.1394)(0.02) + (0.8764)(0.02) + (0.514)(0.02) + (0.9259)(0.02) + (0.3684)(0.02) + (0.8043)(0.02) + \\
&\quad (1)(0.02) + (0.37)(0.02) + (0.2283)(0.02) + (0.2)(0.02) + (0)(0.02) + (0.75)(0.02) + (0.0476)(0.02) + \\
&\quad (0.3542)(0.02) + (0.0476)(0.02) + (0.8043)(0.02) + (0.3222)(0.02) + (0)(0.02) + (0)(0.02) \\
&= 0.0121 + 1.4285 + 0.06 + 0 + 0.0086 + 0.0182 + 0.2 + 0.0067 + 0.015 + 0.0169 + 0.0196 + 0.0031 + \\
&\quad 0.0023 + 0.0028 + 0.0175 + 0.0103 + 0.0185 + 0.0074 + 0.0161 + 0.02 + 0.0074 + 0.0046 + 0.04 + 0 + \\
&\quad 0.015 + 0.001 + 0.0071 + 0.001 + 0.0161 + 0.0064 + 0 + 0 \\
&= 1.766
\end{aligned}$$

