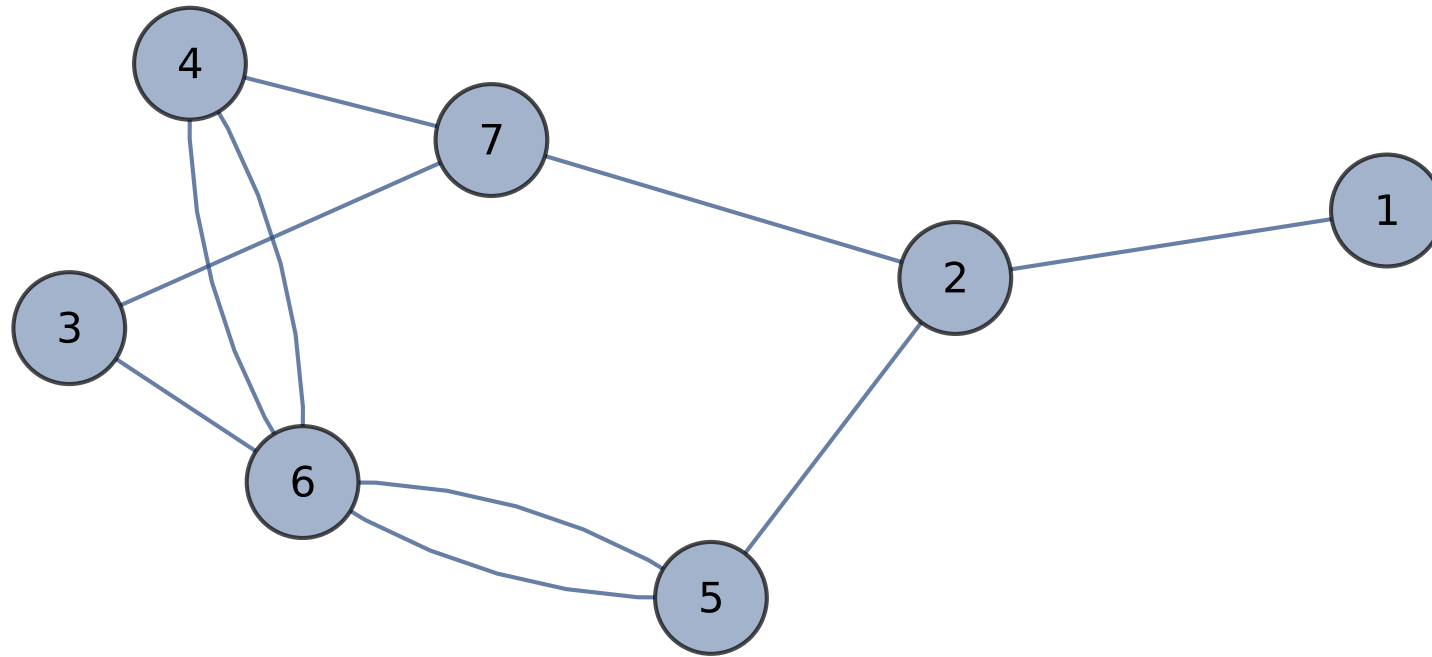


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Illustrated examples for the terms $a(6)$, $a(7)$, $a(8)$

Hugo Pfoertner

2023-02-17

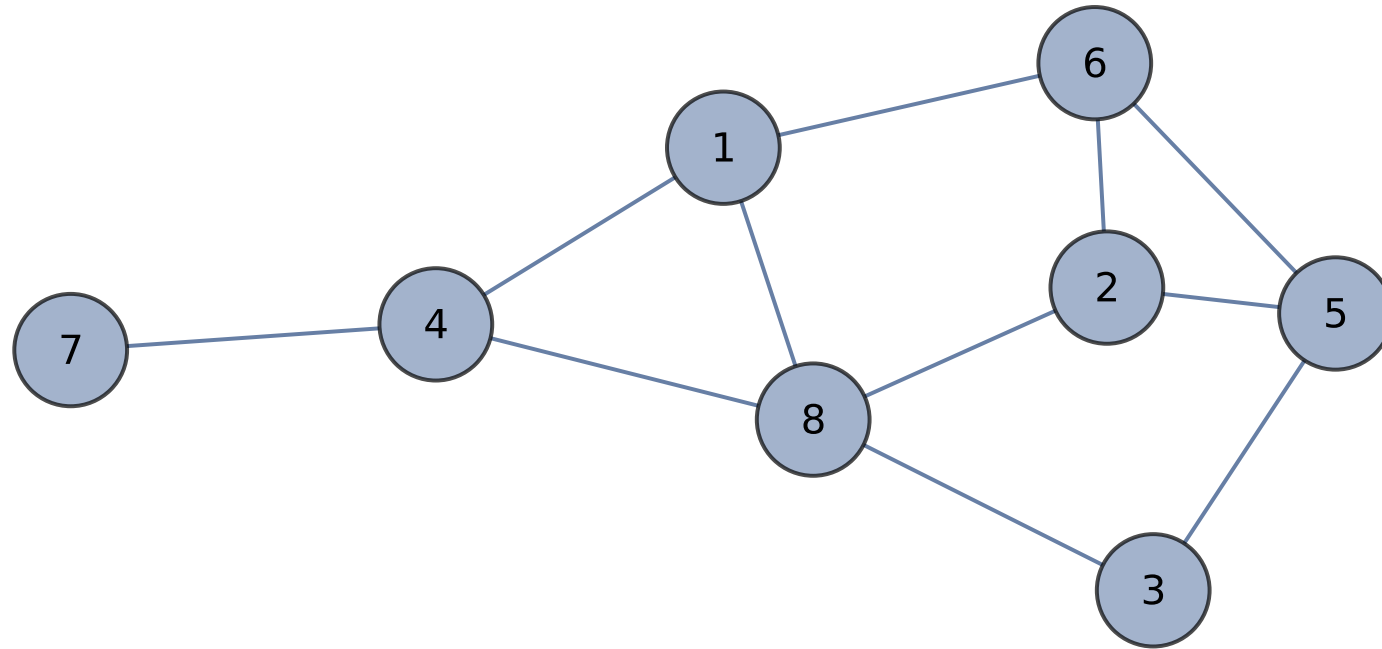


a(6) = 10

node 7 hidden, [[1,2], [2,5], [2,7], [3,6], [3,7], [4,6]^2, [4,7], [5,6]^2]

15 distinct resistance distances:

$R_{12} = 1$, $R_{13} = 99/47$, $R_{14} = 93/47$, $R_{15} = 80/47$, $R_{16} = 86/47$,
 $R_{23} = 52/47$, $R_{24} = 46/47$, $R_{25} = 33/47$, $R_{26} = 39/47$,
 $R_{34} = 40/47$, $R_{35} = 45/47$, $R_{36} = 31/47$,
 $R_{45} = 35/47$, $R_{46} = 19/47$,
 $R_{56} = 20/47$

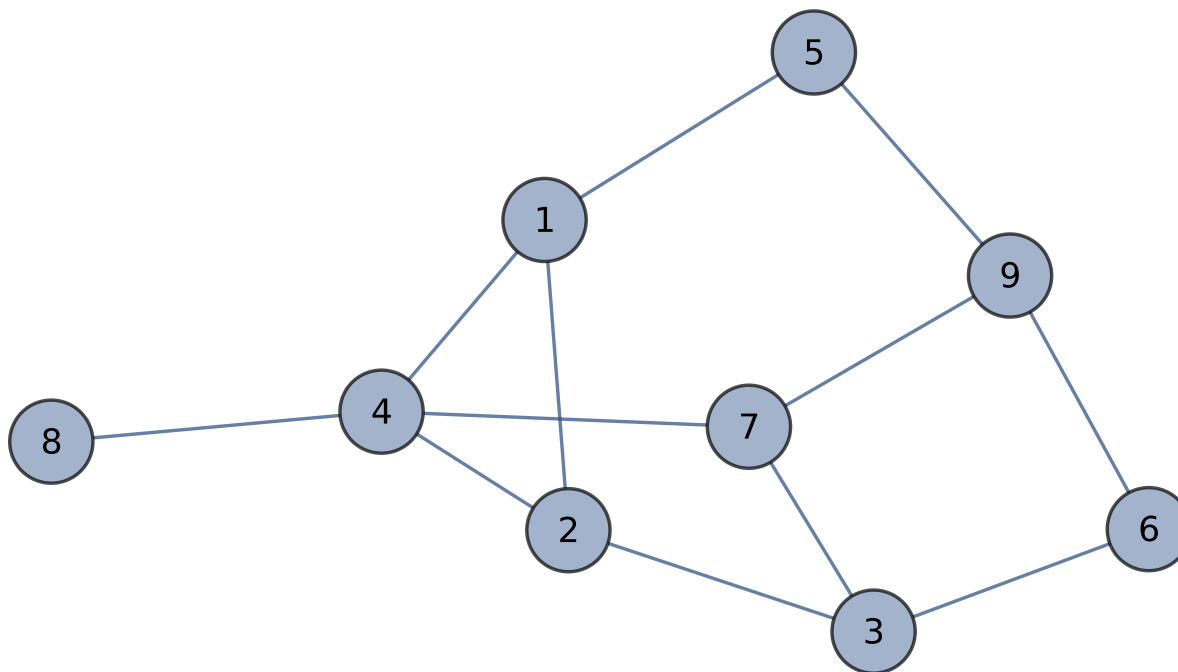


a(7) = 11

node 8 hidden, [[1,4], [1,6], [1,8], [2,5], [2,5], [2,8], [3,5], [3,8], [4,7], [4,8], [5,6]]

21 distinct resistance distances:

R₁₂=75/94, R₁₃=48/47, R₁₄= 59/94, R₁₅= 42/47, R₁₆=61/94, R₁₇=153/94,
 R₂₃=83/94, R₂₄= 50/47, R₂₅= 51/94, R₂₆=25/47, R₂₇= 97/47,
 R₃₄=115/94, R₃₅= 32/47, R₃₆=89/94, R₃₇=209/94,
 R₄₅=111/94, R₄₆=49/47, R₄₇= 1,
 R₅₆=53/94, R₅₇=205/94,
 R₆₇= 96/47



a(8) = 12

node 9 hidden, [[1,2], [1,4], [1,5], [2,3], [2,4], [3,6], [3,7], [4,7], [4,8], [5,9], [6,9], [7,9]]

28 distinct resistance distances:

$R_{12} = 86/151$, $R_{13} = 136/151$, $R_{14} = 85/151$, $R_{15} = 110/151$, $R_{16} = 183/151$, $R_{17} = 128/151$, $R_{18} = 236/151$,
 $R_{23} = 98/151$, $R_{24} = 81/151$, $R_{25} = 156/151$, $R_{26} = 167/151$, $R_{27} = 116/151$, $R_{28} = 232/151$,
 $R_{34} = 121/151$, $R_{35} = 168/151$, $R_{36} = 105/151$, $R_{37} = 88/151$, $R_{38} = 272/151$,
 $R_{45} = 153/151$, $R_{46} = 176/151$, $R_{47} = 95/151$, $R_{48} = 1$,
 $R_{56} = 185/151$, $R_{57} = 152/151$, $R_{58} = 304/151$,
 $R_{67} = 137/151$, $R_{68} = 327/151$,
 $R_{78} = 246/151$