Edges of 9-CAGE-6:

( 14 52) ( 38 39) ( 9 10) ( 12 22) ( 13 14) ( 52 53)
( 46 47) ( 36 37) ( 56 57) ( 15 16) ( 29 54) ( 28 29)
( 37 38) ( 17 25) ( 10 30) ( 34 35) ( 45 46) ( 31 32)
( 23 24) ( 17 18) ( 42 43) ( 41 42) ( 47 48) ( 5 6)
( 54 55) ( 6 7) ( 57 58) ( 33 34) ( 38 53) ( 15 43)
( 7 8) ( 30 31) ( 41 49) ( 6 34) ( 43 44) ( 32 47)
( 18 19) ( 10 11) ( 24 50) ( 3 4) ( 5 28) ( 14 15)
( 21 22) ( 11 12) ( 26 27) ( 27 28) ( 11 40) ( 50 51)
( 8 51) ( 58 1) ( 49 50) ( 3 48) ( 39 40) ( 24 25)
( 42 56) ( 8 9) ( 18 39) ( 35 36) ( 44 45) ( 36 44)
( 19 20) ( 22 23) ( 2 3) ( 4 13) ( 33 57) ( 12 13)
( 20 46) ( 1 9) ( 16 17) ( 48 49) ( 25 26) ( 26 58)
( 27 45) ( 29 30) ( 40 41) ( 4 5) ( 32 33) ( 51 52)
( 20 21) ( 53 54) ( 23 35) ( 21 55) ( 1 2) ( 16 31)
( 55 56) ( 2 37) ( 7 19)

Chromatic polynomial relative the tree basis:

\[ P(9 - \text{CAGE} - 6, x) = \]
\[ +1x \cdot (x - 1)^{57} \]
\[ -30x \cdot (x - 1)^{56} \]
\[ +465x \cdot (x - 1)^{55} \]
\[ -4960x \cdot (x - 1)^{54} \]
\[ +40920x \cdot (x - 1)^{53} \]
\[ -278256x \cdot (x - 1)^{52} \]
\[ +1623160x \cdot (x - 1)^{51} \]
\[ -8347680x \cdot (x - 1)^{50} \]
\[ +38607934x \cdot (x - 1)^{49} \]
\[ -163008943x \cdot (x - 1)^{48} \]
\[ +635701826x \cdot (x - 1)^{47} \]
\[ -2311318211x \cdot (x - 1)^{46} \]
\[ +7894517937x \cdot (x - 1)^{45} \]
\[ -25489588104x \cdot (x - 1)^{44} \]
\[ +78030105785x \cdot (x - 1)^{43} \]
\[ -228977350693x \cdot (x - 1)^{42} \]
\[ +642168449940x \cdot (x - 1)^{41} \]
\[ -1730300402071x \cdot (x - 1)^{40} \]
\[ +449081236516x \cdot (x - 1)^{39} \]
\[ -11250996490697x \cdot (x - 1)^{38} \]
\[ +27257929242579x \cdot (x - 1)^{37} \]
\[ -63953484910414x \cdot (x - 1)^{36} \]
\[ +145483862661050x \cdot (x - 1)^{35} \]
\[ -321175893438829x \cdot (x - 1)^{34} \]
\[ +688565445762518x \cdot (x - 1)^{33} \]
\[ -1434249083867695x \cdot (x - 1)^{32} \]
\[ +2903329116365076x \cdot (x - 1)^{31} \]
\[ -5712056567043391x \cdot (x - 1)^{30} \]
\[ +10921082597283923x \cdot (x - 1)^{29} \]
\[ -2028572374097531x \cdot (x - 1)^{28} \]
\[ +3659019355631409x \cdot (x - 1)^{27} \]
\[ -64048480935077167x \cdot (x - 1)^{26} \]
\[ +108708804126102713x \cdot (x - 1)^{25} \]
\[ -178728019666381085x \cdot (x - 1)^{24} \]
\[ +28493617175913358x \cdot (x - 1)^{23} \]
\[ -43688833043651097x \cdot (x - 1)^{22} \]
\[ +647571175915793695x \cdot (x - 1)^{21} \]
\[ -924039707355193153x \cdot (x - 1)^{20} \]
\[ +1266577589784657331x \cdot (x - 1)^{19} \]
\[ -1663504387102855187x \cdot (x - 1)^{18} \]
\[ +2087474002347059192x \cdot (x - 1)^{17} \]
\[ -2494551184336502485x \cdot (x - 1)^{16} \]
\[ +2828067310136408020x \cdot (x - 1)^{15} \]
\[ -3028345232014775562x \cdot (x - 1)^{14} \]
\[ +3047318945849779064x \cdot (x - 1)^{13} \]
\[ -2864313474659561347x \cdot (x - 1)^{12} \]
\[ +249703726151662373x \cdot (x - 1)^{11} \]
\[ -2001839866740158162x \cdot (x - 1)^{10} \]
\[ +1460596874403024630x \cdot (x - 1)^{9} \]
\[ -957522650628789927x \cdot (x - 1)^{8} \]
\[ +554893374183811967x \cdot (x - 1)^{7} \]
\[ -278265595921850587x \cdot (x - 1)^{6} \]
\[ +117299098874445697x \cdot (x - 1)^{5} \]
\[ -39859214692378279x \cdot (x - 1)^{4} \]
\[ +10222731557025853x \cdot (x - 1)^{3} \]
\[ -17561168066490065x \cdot (x - 1)^{2} \]
\[ +151240356278886x \cdot (x - 1)^{1} \]
Chromatic polynomial relative the standard basis:

\[ P(9 - \text{Cage} - 6, x) = \]
\[-29922986321843941096x + 42163369380985046314x^2 - 29950447719482437509x^3 + 14280283436078075405x^4 - 5148777920527813933378x^5 + 149796491604572032331x^6 - 36638135031318936949975x^7 + 77487004631822316952154x^8 - 144631332574432214993566x^9 + 241964026936721320265441x^{10} - 3671778828472760099763707x^{11} + 510223246910241272518763x^{12} - 6541951320087073396407930x^{13} + 7787522478602780151418156x^{14} - 865019124408371879482792x^{15} + 9002841573279620359153884x^{16} - 8809056957888509221751810x^{17} + 81259410348237107107441x^{18} - 7082454620568782185788055x^{19} + 584303099417138420587131x^{20} - 2398435012160742465361175x^{21} + 1599956220539527304935187x^{22} - 1018296705195778847122984x^{23} + 61037699870106579149236x^{24} - 354252278267643082938571x^{25} + 193586689790395250273989x^{26} - 100490467749503864245063x^{27} + 49525097358919361738451x^{28} - 2315680743262748189421x^{29} + 10264234589878765356292x^{30} - 4308714096630192051524x^{31} + 1711026013507998326795x^{32} - 641951959388070276864x^{33} + 227228736791757236546x^{34} - 75759505258386591101x^{35} + 23749145066715770531x^{36} - 6985696438390187733x^{37} + 19237090027207343567x^{38} - 494685207303605222x^{39} + 118448125379419119x^{40} - 26322096351172693x^{41} + 5408681181826327x^{42} - 1023266906625390x^{43} + 177366491338351x^{44} - 28005250158883x^{45} + 4000750771064x^{46} - 512916793759x^{47} + 5843355948x^{48} - 584335957x^{49} + 504981379x^{50} - 36949857x^{51} + 2225895x^{52} - 105995x^{53} + 3741x^{54} - 87x^{55} + 1x^{56} + 494685207303605222x^{41} + 118448125379419119x^{40} - 26322096351172693x^{39} + 5408681181826327x^{38} - 1023266906625390x^{37} + 177366491338351x^{36} - 28005250158883x^{35} + 4000750771064x^{34} - 512916793759x^{33} + 5843355948x^{32} - 584335957x^{31} + 504981379x^{30} - 36949857x^{29} + 2225895x^{28} - 105995x^{27} + 3741x^{26} - 87x^{25} + 1x^{24} - 4308714096630192051524x^{31} + 1711026013507998326795x^{32} - 641951959388070276864x^{33} + 227228736791757236546x^{34} - 75759505258386591101x^{35} + 23749145066715770531x^{36} - 6985696438390187733x^{37} + 19237090027207343567x^{38} - 494685207303605222x^{39} + 118448125379419119x^{40} - 26322096351172693x^{41} + 5408681181826327x^{42} - 1023266906625390x^{43} + 177366491338351x^{44} - 28005250158883x^{45} + 4000750771064x^{46} - 512916793759x^{47} + 5843355948x^{48} - 584335957x^{49} + 504981379x^{50} - 36949857x^{51} + 2225895x^{52} - 105995x^{53} + 3741x^{54} - 87x^{55} + 1x^{56}
Roots of the chromatic polynomial of 9-CAGE-6:

\[ x > 0. \quad x > 1.03569 + 1.68855i \]
\[ x > 1. \quad x > 1.78699 - 1.61744i \]
\[ x > 2. \quad x > 1.78699 + 1.61744i \]
\[ x > 2.68293 \quad x > 1.92847 - 1.53508i \]
\[ x > -0.669852 - 1.15218i \quad x > 1.92847 + 1.53508i \]
\[ x > -0.669852 + 1.15218i \quad x > 2.05523 - 1.4558i \]
\[ x > -0.412723 - 1.38893i \quad x > 2.05523 + 1.4558i \]
\[ x > -0.412723 + 1.38893i \quad x > 2.15734 - 1.36943i \]
\[ x > -0.17911 - 1.53553i \quad x > 2.15734 + 1.36943i \]
\[ x > -0.17911 + 1.53553i \quad x > 2.24436 - 1.26814i \]
\[ x > 0.0381708 - 1.64601i \quad x > 2.24436 + 1.26814i \]
\[ x > 0.0381708 + 1.64601i \quad x > 2.32399 - 1.1525i \]
\[ x > 0.245692 - 1.73753i \quad x > 2.32399 + 1.1525i \]
\[ x > 0.245692 + 1.73753i \quad x > 2.4002 - 1.02698i \]
\[ x > 0.447463 - 1.81577i \quad x > 2.4002 + 1.02698i \]
\[ x > 0.447463 + 1.81577i \quad x > 2.47135 - 0.895991i \]
\[ x > 0.643799 - 1.87542i \quad x > 2.47135 + 0.895991i \]
\[ x > 0.643799 + 1.87542i \quad x > 2.53438 - 0.763275i \]
\[ x > 0.825283 - 1.89467i \quad x > 2.53438 + 0.763275i \]
\[ x > 0.825283 + 1.89467i \quad x > 2.58695 - 0.631207i \]
\[ x > 0.994845 - 1.87996i \quad x > 2.58695 + 0.631207i \]
\[ x > 0.994845 + 1.87996i \quad x > 2.62772 - 0.500772i \]
\[ x > 1.15995 - 1.84714i \quad x > 2.62772 + 0.500772i \]
\[ x > 1.15995 + 1.84714i \quad x > 2.65647 - 0.372448i \]
\[ x > 1.32126 - 1.80288i \quad x > 2.65647 + 0.372448i \]
\[ x > 1.32126 + 1.80288i \quad x > 2.67348 - 0.246732i \]
\[ x > 1.48011 - 1.74991i \quad x > 2.67348 + 0.246732i \]
\[ x > 1.48011 + 1.74991i \quad x > 2.68103 - 0.122826i \]
\[ x > 1.63569 - 1.68855i \quad x > 2.68103 + 0.122826i \]