

Edges of 9-CAGE-10:

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

Chromatic polynomial relative the tree basis:

$$\begin{aligned}
 P(9 - CAGE - 10, x) = & \\
 & +1x * (x - 1)^{57} \\
 & -30x * (x - 1)^{56} \\
 & +465x * (x - 1)^{55} \\
 & -4960x * (x - 1)^{54} \\
 & +40920x * (x - 1)^{53} \\
 & -278256x * (x - 1)^{52} \\
 & +1623160x * (x - 1)^{51} \\
 & -8347680x * (x - 1)^{50} \\
 & +38607947x * (x - 1)^{49} \\
 & -163009316x * (x - 1)^{48} \\
 & +635707335x * (x - 1)^{47} \\
 & -2311374034x * (x - 1)^{46} \\
 & +7894954271x * (x - 1)^{45} \\
 & -25492392187x * (x - 1)^{44} \\
 & +78218525901x * (x - 1)^{43} \\
 & -229051917743x * (x - 1)^{42} \\
 & +642491826207x * (x - 1)^{41} \\
 & -1731576785430x * (x - 1)^{40} \\
 & +4495450219343x * (x - 1)^{39} \\
 & -11266650899173x * (x - 1)^{38} \\
 & +27307368567823x * (x - 1)^{37} \\
 & -64100437967659x * (x - 1)^{36} \\
 & +145896952429868x * (x - 1)^{35} \\
 & -322278421915764x * (x - 1)^{34} \\
 & +691368508375787x * (x - 1)^{33} \\
 & -1441055845189488x * (x - 1)^{32} \\
 & +2919151350061541x * (x - 1)^{31} \\
 & -5747325024325762x * (x - 1)^{30} \\
 & +10996575762485113x * (x - 1)^{29} \\
 & -20441069066455320x * (x - 1)^{28} \\
 & +36897726949041056x * (x - 1)^{27} \\
 & -64634484908261772x * (x - 1)^{26} \\
 & +109783811883273520x * (x - 1)^{25} \\
 & -180626455038588619x * (x - 1)^{24} \\
 & +287519898632087516x * (x - 1)^{23} \\
 & -442161789877588838x * (x - 1)^{22} \\
 & +655851397962396128x * (x - 1)^{21} \\
 & -936516781283453717x * (x - 1)^{20} \\
 & +1284589415929045645x * (x - 1)^{19} \\
 & -1688364107397572036x * (x - 1)^{18} \\
 & +2120197207035990299x * (x - 1)^{17} \\
 & -2535510078661578499x * (x - 1)^{16} \\
 & +2876645237094533050x * (x - 1)^{15} \\
 & -3082708930734030459x * (x - 1)^{14} \\
 & +3104441077474928760x * (x - 1)^{13} \\
 & -2920336891666914658x * (x - 1)^{12} \\
 & +2547965148409757802x * (x - 1)^{11} \\
 & -2044389117612210734x * (x - 1)^{10} \\
 & +1492934010942312930x * (x - 1)^9 \\
 & -979593945877542708x * (x - 1)^8 \\
 & +568204444746438070x * (x - 1)^7 \\
 & -285209713717045782x * (x - 1)^6 \\
 & +120343063607698835x * (x - 1)^5 \\
 & -40934407389390681x * (x - 1)^4 \\
 & +10509240934911528x * (x - 1)^3 \\
 & -1807225884055276x * (x - 1)^2 \\
 & +155807823255760x * (x - 1)^1
 \end{aligned}$$

Chromatic polynomial relative the standard basis:

$$\begin{aligned}
P(9 - Cage - 10, x) = & \\
& -30461646028198193162x \\
& +429196038726438213127x^2 \\
& -3043820574708570687641x^3 \\
& +14500733542111659371512x^4 \\
& -52239301538109485428318x^5 \\
& +151857873728948976238376x^6 \\
& -371119328854681256250186x^7 \\
& +784252015720114017796942x^8 \\
& -1462658708422304839222127x^9 \\
& +2444987543824871461799823x^{10} \\
& -3707284497884019333885591x^{11} \\
& +5147510102285064410471595x^{12} \\
& -6594886972413859647486772x^{13} \\
& +7844582358768767203625122x^{14} \\
& -8707153448983505827017409x^{15} \\
& +9055696441381428404792506x^{16} \\
& -8854774263511656423127236x^{17} \\
& +8162887234046031811326795x^{18} \\
& -7110401350584932006716119x^{19} \\
& +5862844317559780080139791x^{20} \\
& -4582477367084181248259736x^{21} \\
& +3398912261469357938328883x^{22} \\
& -2394261700706613164625190x^{23} \\
& +1602615112221680312237876x^{24} \\
& -1019644264744772953086936x^{25} \\
& +616705759271422477417759x^{26} \\
& -354556671290198243568333x^{27} \\
& +193716695620939456285959x^{28} \\
& -100542457721304720370228x^{29} \\
& +49544538246201644251514x^{30} \\
& -23163617268900307724127x^{31} \\
& +10266451000269095195827x^{32} \\
& -4309381599057772287954x^{33} \\
& +1711213180807059181046x^{34} \\
& -642000477956236904904x^{35} \\
& +227240323794034920708x^{36} \\
& -75762489217142697918x^{37} \\
& +23749653108266873999x^{38} \\
& -6985788753534215156x^{39} \\
& +1923724158965551241x^{40} \\
& -494687426904663005x^{41} \\
& +118448413907084729x^{42} \\
& -26322129186974483x^{43} \\
& +5408684403081680x^{44} \\
& -1023267173537575x^{45} \\
& +177366509503568x^{46} \\
& -28005251133885x^{47} \\
& +4000750809765x^{48} \\
& -512916794769x^{49} \\
& +58433559497x^{50} \\
& -5843355957x^{51} \\
& +504981379x^{52} \\
& -36949857x^{53} \\
& +2225895x^{54} \\
& -105995x^{55} \\
& +3741x^{56} \\
& -87x^{57} \\
& +1x^{58}
\end{aligned}$$

Roots of the chromatic polynomial of 9-CAGE-10:

$x- > 0.$	$x- > 1.64085 + 1.69151I$
$x- > 1.$	$x- > 1.79015 - 1.62073I$
$x- > 2.$	$x- > 1.79015 + 1.62073I$
$x- > 2.68254$	$x- > 1.92847 - 1.54318I$
$x- > -0.675164 - 1.15392I$	$x- > 1.92847 + 1.54318I$
$x- > -0.675164 + 1.15392I$	$x- > 2.04794 - 1.46409I$
$x- > -0.412123 - 1.38547I$	$x- > 2.04794 + 1.46409I$
$x- > -0.412123 + 1.38547I$	$x- > 2.14736 - 1.36963I$
$x- > -0.17847 - 1.53363I$	$x- > 2.14736 + 1.36963I$
$x- > -0.17847 + 1.53363I$	$x- > 2.24074 - 1.26089I$
$x- > 0.0384627 - 1.64657I$	$x- > 2.24074 + 1.26089I$
$x- > 0.0384627 + 1.64657I$	$x- > 2.32771 - 1.14557I$
$x- > 0.245695 - 1.74086I$	$x- > 2.32771 + 1.14557I$
$x- > 0.245695 + 1.74086I$	$x- > 2.4068 - 1.02308I$
$x- > 0.446876 - 1.81983I$	$x- > 2.4068 + 1.02308I$
$x- > 0.446876 + 1.81983I$	$x- > 2.47782 - 0.896209I$
$x- > 0.642472 - 1.88031I$	$x- > 2.47782 + 0.896209I$
$x- > 0.642472 + 1.88031I$	$x- > 2.53891 - 0.766964I$
$x- > 0.820093 - 1.8923I$	$x- > 2.53891 + 0.766964I$
$x- > 0.820093 + 1.8923I$	$x- > 2.58883 - 0.636273I$
$x- > 0.99183 - 1.87569I$	$x- > 2.58883 + 0.636273I$
$x- > 0.99183 + 1.87569I$	$x- > 2.62785 - 0.505167I$
$x- > 1.15881 - 1.84379I$	$x- > 2.62785 + 0.505167I$
$x- > 1.15881 + 1.84379I$	$x- > 2.65595 - 0.375231I$
$x- > 1.32347 - 1.80197I$	$x- > 2.65595 + 0.375231I$
$x- > 1.32347 + 1.80197I$	$x- > 2.67288 - 0.247917I$
$x- > 1.48405 - 1.75163I$	$x- > 2.67288 + 0.247917I$
$x- > 1.48405 + 1.75163I$	$x- > 2.68047 - 0.122986I$
$x- > 1.64085 - 1.69151I$	$x- > 2.68047 + 0.122986I$