

*****COMPLETE GRAPH-13*****
Edges of COMPLETE GRAPH-13:

(11, 13) (1, 10) (5, 9) (4, 11) (10, 13) (2, 11) (12, 13)
(1, 12) (9, 10) (10, 12) (3, 12) (9, 13) (9, 11) (7, 12)
(1, 13) (4, 12) (3, 6) (2, 13) (6, 8) (3, 11) (5, 12)
(8, 11) (3, 10) (6, 10) (4, 13) (7, 9) (6, 11) (2, 5)
(11, 12) (4, 8) (5, 13) (7, 10) (1, 5) (1, 11) (6, 12)
(6, 9) (7, 8) (2, 3) (9, 12) (1, 9) (5, 8) (8, 12)
(2, 10) (1, 8) (2, 8) (5, 6) (6, 7) (1, 7) (7, 13)
(7, 11) (2, 4) (1, 4) (5, 11) (2, 7) (2, 9) (4, 10)
(3, 5) (3, 7) (1, 2) (6, 13) (10, 11) (3, 9) (2, 6)
(5, 10) (3, 13) (8, 13) (4, 5) (3, 4) (1, 3) (4, 7)
(4, 9) (8, 9) (3, 8) (1, 6) (8, 10) (4, 6) (2, 12)
(5, 7)

VERTICES = 13 EDGES = 78

Chromatic polynomial of COMPLETE GRAPH-13:

$$\begin{aligned} P(G, x) = & \quad 1 \ x*(x-1)^{12} \\ & -66 \ x*(x-1)^{11} \\ & 1925 \ x*(x-1)^{10} \\ & -32670 \ x*(x-1)^9 \\ & 357423 \ x*(x-1)^8 \\ & -2637558 \ x*(x-1)^7 \\ & 13339535 \ x*(x-1)^6 \\ & -45995730 \ x*(x-1)^5 \\ & 105258076 \ x*(x-1)^4 \\ & -150917976 \ x*(x-1)^3 \\ & 120543840 \ x*(x-1)^2 \\ & -39916800 \ x*(x-1)^1 \end{aligned}$$