The Ghosh population equation and 14 solutions

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Abstract

In this paper, I describe the Ghosh population equation and 14 solutions.
The paper ends with "The End"

Introduction

In this paper, I describe the Ghosh population equation and 14 solutions.

The Ghosh population equation

The Ghosh population equation is

$$\alpha + \beta(\chi + \delta e^{\epsilon})(\phi + \gamma e^{\eta}) = \iota$$

14 solutions to the Ghosh population equation

14 solutions to the Ghosh population equation are

$$\alpha = 9, \beta = 9, \chi = 18, \delta = 92, \epsilon = 3, \phi = 60, \gamma = 73, \eta = 46, \iota = 9\left(1081 + 5520e^{3} + 1314e^{46} + 6716e^{49}\right)$$

$$\alpha = 48, \beta = 35, \chi = 21, \delta = 70, \epsilon = 49, \phi = 23, \gamma = 68, \eta = 41, \iota = 16953 + 49980e^{41} + 56350e^{49} + 166600e^{90}$$

$$\alpha = 360, \beta = 23, \chi = 68, \delta = 94, \epsilon = 32, \phi = 94, \gamma = 30, \eta = 53, \iota = 4\left(36844 + 50807e^{32} + 11730e^{53} + 16215e^{85}\right)$$

$$\alpha = 390, \beta = 20, \chi = 40, \delta = 20, \epsilon = 69, \phi = 34, \gamma = 99, \eta = 61, \iota = 10\left(2759 + 7920e^{61} + 1360e^{69} + 3960e^{130}\right)$$

$$\alpha = 549, \beta = 21, \chi = 22, \delta = 9, \epsilon = 20, \phi = 33, \gamma = 65, \eta = 4, \iota = 3\left(5265 + 10010e^{4} + 2079e^{20} + 4095e^{24}\right)$$

$$\alpha = 603, \beta = 90, \chi = 59, \delta = 35, \epsilon = 95, \phi = 93, \gamma = 8, \eta = 90, \iota = 9\left(54937 + 4720e^{90} + 32550e^{95} + 2800e^{185}\right)$$

$$\alpha = 782, \beta = 41, \chi = 32, \delta = 9, \epsilon = 57, \phi = 61, \gamma = 38, \eta = 6, \iota = 80814 + 49856e^{6} + 22509e^{57} + 14022e^{63}$$

$$\alpha = 930, \beta = 96, \chi = 43, \delta = 3, \epsilon = 99, \phi = 92, \gamma = 60, \eta = 29, \iota = 6\left(63451 + 41280e^{29} + 4416e^{99} + 2880e^{128}\right)$$

$$\alpha = 977, \beta = 98, \chi = 26, \delta = 33, \epsilon = 81, \phi = 76, \gamma = 100, \eta = 49, \iota = 194625 + 254800e^{49} + 245784e^{81} + 323400e^{130}$$

$$\alpha = 1007, \beta = 72, \chi = 80, \delta = 39, \epsilon = 90, \phi = 47, \gamma = 76, \eta = 44, \iota = 271727 + 437760e^{44} + 131976e^{90} + 213408e^{134}$$

$$\alpha = 1039, \beta = 15, \chi = 38, \delta = 23, \epsilon = 18, \phi = 86, \gamma = 61, \eta = 31, \iota = 50059 + 29670e^{18} + 34770e^{31} + 21045e^{49}$$

$$\alpha = 1062, \beta = 91, \chi = 56, \delta = 21, \epsilon = 83, \phi = 101, \gamma = 84, \eta = 9, \iota = 515758 + 428064e^{9} + 193011e^{83} + 160524e^{92}$$

$$\alpha = 1218, \beta = 46, \chi = 52, \delta = 26, \epsilon = 80, \phi = 75, \gamma = 32, \eta = 39, \iota = 2\left(90309 + 38272e^{39} + 44850e^{80} + 19136e^{119}\right)$$

$$\alpha = 1247, \beta = 20, \chi = 93, \delta = 20, \epsilon = 80, \phi = 34, \gamma = 33, \eta = 85, \iota = 64487 + 13600e^{80} + 61380e^{85} + 13200e^{165}$$

The End