PopulationSize = 300 NumberOfGenerations = 20 CrossoverProbability = 100 CreationProbability = 0

CreationType = Ramped Half and Half

MaximumDepthForCreation = 6 MaximumDepthForCrossover = 17

SelectionType = Tournament selection

TournamentSize = 20
DemeticGrouping = 0ff
DemeSize = 100
DemeticMigProbability = 100
SwapMutationProbability = 3
ShrinkMutationProbability = 3
AddBestToNewPopulation = 1
SteadyState = 0

$$f_1 = f_2(x, x)x$$

$$f_2 = x_1x_1 + x_2 + x_2x_2x_2 + x_1$$

Generation 1, fitness 109.055

$$f_1 = f_2(x, x)x$$

$$f_2 = x_1x_2 + x_2 + x_2x_2x_2 + x_1$$

Generation 2, fitness 1.66667

$$f_1 = \left(\frac{x}{x} + f_2(x, x)\right) x$$

$$f_2 = x_1 x_1 + x_2 + x_2 x_2 x_2$$

Generation 3, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 4, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 5, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 6, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 7, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 8, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

$$f_2 = x_1 x_2 + x_2$$

Generation 9, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 10, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 11, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_2x_1 + x_2$

Generation 12, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 13, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 14, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 15, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 16, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 17, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 18, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 19, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$

Generation 20, fitness 1

$$f_1 = f_2(xx, f_2(x, x))$$

 $f_2 = x_1x_2 + x_2$