Genetic Inputs

We ran 6 inputs of sizes 2000,2000,3000,3500,4000,10000 randomly distributed (3 attempts on each one).  
Number 1  
"size=2000; sum=100607; avgJob=51; perfectSplit=20122"  
Attempt 1 start  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=50 TF=20328,  
#Machines=5, content:Very long..., Summed Machines(20326,20328,19861,20059,20033)  
\*\*Best gene got replaced in generation 3. Gene details: Gene id=78 TF=20301,  
#Machines=5, content:Very long..., Summed Machines(20301,20267,20298,19827,19914)  
\*\*Best gene got replaced in generation 4. Gene details: Gene id=3 TF=20242, #Machines=5,  
content:Very long..., Summed Machines(20066,20137,20001,20161,20242)  
\*\*Best gene got replaced in generation 55. Gene details: Gene id=59 TF=20208,  
#Machines=5, content:Very long..., Summed Machines(20181,20208,19969,20204,20045)  
\*\*Best gene got replaced in generation 59. Gene details: Gene id=90 TF=20198,  
#Machines=5, content:Very long..., Summed Machines(20132,20036,20077,20198,20164)  
\*\*Best gene got replaced in generation 65. Gene details: Gene id=85 TF=20187,  
#Machines=5, content:Very long..., Summed Machines(20088,20151,20037,20144,20187)  
\*\*Best gene got replaced in generation 70. Gene details: Gene id=29 TF=20181,  
#Machines=5, content:Very long..., Summed Machines(20181,20007,20141,20100,20178)  
\*\*Best gene got replaced in generation 87. Gene details: Gene id=32 TF=20177,  
#Machines=5, content:Very long..., Summed Machines(20066,20134,20177,20160,20070)  
\*\*Best gene got replaced in generation 93. Gene details: Gene id=88 TF=20169,  
#Machines=5, content:Very long..., Summed Machines(20010,20100,20169,20167,20161)  
\*\*Best gene got replaced in generation 100. Gene details: Gene id=89 TF=20143,  
#Machines=5, content:Very long..., Summed Machines(20090,20128,20111,20135,20143)  
\*\*END On Gen=100  
\*\*Best gene found: Gene id=89 TF=20143, #Machines=5, content:Very long..., Summed  
Machines(20090,20128,20111,20135,20143)  
Attempt 1: popSize=100; gensNum=100; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=20143; DiffFromPerfectSplit=21  
Attempt 2 start  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=23 TF=20592,  
#Machines=5, content:Very long..., Summed Machines(19944,20592,19537,20205,20329)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=37 TF=20540,  
#Machines=5, content:Very long..., Summed Machines(20100,19714,19723,20530,20540)  
\*\*Best gene got replaced in generation 3. Gene details: Gene id=22 TF=20493,  
#Machines=5, content:Very long..., Summed Machines(20225,20493,20104,20312,19473)  
\*\*Best gene got replaced in generation 4. Gene details: Gene id=14 TF=20428,  
#Machines=5, content:Very long..., Summed Machines(20155,20396,19954,19674,20428)  
\*\*Best gene got replaced in generation 4. Gene details: Gene id=36 TF=20412,  
#Machines=5, content:Very long..., Summed Machines(20406,19778,20142,19869,20412)  
\*\*Best gene got replaced in generation 5. Gene details: Gene id=3 TF=20363, #Machines=5,  
content:Very long..., Summed Machines(20344,19924,20363,20046,19930)  
\*\*Best gene got replaced in generation 7. Gene details: Gene id=35 TF=20329,  
#Machines=5, content:Very long..., Summed Machines(20248,19950,19798,20282,20329)  
\*\*Best gene got replaced in generation 18. Gene details: Gene id=22 TF=20278,  
#Machines=5, content:Very long..., Summed Machines(20004,20090,20201,20034,20278)  
\*\*Best gene got replaced in generation 25. Gene details: Gene id=1 TF=20206,  
#Machines=5, content:Very long..., Summed Machines(20035,20097,20106,20163,20206)  
\*\*Best gene got replaced in generation 35. Gene details: Gene id=9 TF=20198,  
#Machines=5, content:Very long..., Summed Machines(20176,20184,20085,20198,19964)  
\*\*Best gene got replaced in generation 59. Gene details: Gene id=1 TF=20192,  
#Machines=5, content:Very long..., Summed Machines(20095,20192,20047,20143,20130)  
\*\*Best gene got replaced in generation 60. Gene details: Gene id=2 TF=20181,  
#Machines=5, content:Very long..., Summed Machines(20136,20114,20181,20082,20094)  
\*\*Best gene got replaced in generation 63. Gene details: Gene id=42 TF=20172,  
#Machines=5, content:Very long..., Summed Machines(20059,20152,20153,20172,20071)  
\*\*Best gene got replaced in generation 66. Gene details: Gene id=21 TF=20166,  
#Machines=5, content:Very long..., Summed Machines(20158,20062,20082,20139,20166)  
\*\*Best gene got replaced in generation 72. Gene details: Gene id=37 TF=20161,  
#Machines=5, content:Very long..., Summed Machines(20085,20161,20088,20157,20116)  
\*\*END On Gen=72  
\*\*Best gene found: Gene id=37 TF=20161, #Machines=5, content:Very long..., Summed  
Machines(20085,20161,20088,20157,20116)  
Attempt 2: popSize=50; gensNum=200; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=20161; DiffFromPerfectSplit=39  
Attempt 3 start  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=24 TF=20404,  
#Machines=5, content:Very long..., Summed Machines(20201,20404,19460,20399,20143)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=35 TF=20380,  
#Machines=5, content:Very long..., Summed Machines(20380,20264,19627,20082,20254)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=106 TF=20373,  
#Machines=5, content:Very long..., Summed Machines(19768,20071,20299,20373,20096)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=169 TF=20350,  
#Machines=5, content:Very long..., Summed Machines(20328,20318,19520,20091,20350)  
\*\*Best gene got replaced in generation 3. Gene details: Gene id=97 TF=20334,  
#Machines=5, content:Very long..., Summed Machines(20163,20204,20026,19880,20334)  
\*\*Best gene got replaced in generation 4. Gene details: Gene id=8 TF=20232, #Machines=5,  
content:Very long..., Summed Machines(20224,19878,20229,20232,20044)  
\*\*Best gene got replaced in generation 28. Gene details: Gene id=86 TF=20215,  
#Machines=5, content:Very long..., Summed Machines(20215,19966,20109,20166,20151)  
\*\*Best gene got replaced in generation 29. Gene details: Gene id=147 TF=20207,  
#Machines=5, content:Very long..., Summed Machines(20137,20207,19883,20198,20182)  
\*\*END On Gen=29  
\*\*Best gene found: Gene id=147 TF=20207, #Machines=5, content:Very long..., Summed  
Machines(20137,20207,19883,20198,20182)  
Attempt 3: popSize=200; gensNum=50; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=20207; DiffFromPerfectSplit=85  
"BestGene found on all attempts:Gene id=89 TF=20143, #Machines=5, content:Very long...,  
Summed Machines(20090,20128,20111,20135,20143)"  
"Total time: 108.849 seconds"

Number 2  
"size=2000; sum=101407; avgJob=51; perfectSplit=20282"  
Attempt 1 start  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=1 TF=20769, #Machines=5,  
content:Very long..., Summed Machines(20769,20717,20226,19426,20269)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=32 TF=20520,  
#Machines=5, content:Very long..., Summed Machines(20283,20054,20210,20520,20340)  
\*\*Best gene got replaced in generation 5. Gene details: Gene id=5 TF=20487, #Machines=5,  
content:Very long..., Summed Machines(20341,19979,20487,20470,20130)  
\*\*Best gene got replaced in generation 6. Gene details: Gene id=44 TF=20375,  
#Machines=5, content:Very long..., Summed Machines(20334,20280,20288,20130,20375)  
\*\*Best gene got replaced in generation 28. Gene details: Gene id=89 TF=20362,  
#Machines=5, content:Very long..., Summed Machines(20362,20161,20310,20304,20270)  
\*\*Best gene got replaced in generation 47. Gene details: Gene id=29 TF=20350,  
#Machines=5, content:Very long..., Summed Machines(20132,20266,20318,20350,20341)  
\*\*Best gene got replaced in generation 86. Gene details: Gene id=6 TF=20335,  
#Machines=5, content:Very long..., Summed Machines(20335,20162,20292,20316,20302)  
\*\*Best gene got replaced in generation 88. Gene details: Gene id=28 TF=20329,  
#Machines=5, content:Very long..., Summed Machines(20267,20186,20298,20329,20327)  
\*\*Best gene got replaced in generation 96. Gene details: Gene id=3 TF=20328,  
#Machines=5, content:Very long..., Summed Machines(20218,20278,20294,20289,20328)  
\*\*END On Gen=96  
\*\*Best gene found: Gene id=3 TF=20328, #Machines=5, content:Very long..., Summed  
Machines(20218,20278,20294,20289,20328)  
Attempt 1: popSize=100; gensNum=100; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=20328; DiffFromPerfectSplit=46  
Attempt 2 start  
\*\*Best gene got replaced in generation 5. Gene details: Gene id=34 TF=20552,  
#Machines=5, content:Very long..., Summed Machines(20050,19781,20507,20517,20552)  
\*\*Best gene got replaced in generation 7. Gene details: Gene id=34 TF=20540,  
#Machines=5, content:Very long..., Summed Machines(19718,20539,20167,20443,20540)  
\*\*Best gene got replaced in generation 13. Gene details: Gene id=8 TF=20491,  
#Machines=5, content:Very long..., Summed Machines(20428,20491,20137,20224,20127)  
\*\*Best gene got replaced in generation 13. Gene details: Gene id=16 TF=20477,  
#Machines=5, content:Very long..., Summed Machines(20358,20477,20400,19955,20217)  
\*\*Best gene got replaced in generation 14. Gene details: Gene id=13 TF=20473,  
#Machines=5, content:Very long..., Summed Machines(20291,20473,20424,19932,20287)  
\*\*Best gene got replaced in generation 14. Gene details: Gene id=15 TF=20437,  
#Machines=5, content:Very long..., Summed Machines(20437,20355,19904,20321,20390)  
\*\*Best gene got replaced in generation 24. Gene details: Gene id=1 TF=20394,  
#Machines=5, content:Very long..., Summed Machines(20278,20115,20351,20269,20394)  
\*\*Best gene got replaced in generation 32. Gene details: Gene id=23 TF=20386,  
#Machines=5, content:Very long..., Summed Machines(20269,20335,20386,20052,20365)  
\*\*Best gene got replaced in generation 44. Gene details: Gene id=11 TF=20363,  
#Machines=5, content:Very long..., Summed Machines(20289,20321,20301,20133,20363)  
\*\*Best gene got replaced in generation 51. Gene details: Gene id=14 TF=20353,  
#Machines=5, content:Very long..., Summed Machines(20155,20329,20353,20250,20320)  
\*\*Best gene got replaced in generation 53. Gene details: Gene id=35 TF=20339,  
#Machines=5, content:Very long..., Summed Machines(20242,20339,20303,20244,20279)  
\*\*Best gene got replaced in generation 55. Gene details: Gene id=39 TF=20321,  
#Machines=5, content:Very long..., Summed Machines(20274,20280,20311,20221,20321)  
\*\*Best gene got replaced in generation 64. Gene details: Gene id=37 TF=20306,  
#Machines=5, content:Very long..., Summed Machines(20263,20273,20306,20302,20263)  
\*\*Best gene got replaced in generation 66. Gene details: Gene id=37 TF=20300,  
#Machines=5, content:Very long..., Summed Machines(20300,20283,20274,20265,20285)  
\*\*END On Gen=66  
\*\*Best gene found: Gene id=37 TF=20300, #Machines=5, content:Very long..., Summed  
Machines(20300,20283,20274,20265,20285)  
Attempt 2: popSize=50; gensNum=200; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=20300; DiffFromPerfectSplit=18  
Attempt 3 start  
\*\*Best gene got replaced in generation 9. Gene details: Gene id=23 TF=20331,  
#Machines=5, content:Very long..., Summed Machines(20331,20326,20273,20217,20260)  
\*\*END On Gen=9  
\*\*Best gene found: Gene id=23 TF=20331, #Machines=5, content:Very long..., Summed  
Machines(20331,20326,20273,20217,20260)  
Attempt 3: popSize=200; gensNum=50; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=20331; DiffFromPerfectSplit=49  
"BestGene found on all attempts:Gene id=37 TF=20300, #Machines=5, content:Very long...,  
Summed Machines(20300,20283,20274,20265,20285)"  
"Total time: 107.723 seconds"

Number 3  
"size=3000; sum=152830; avgJob=51; perfectSplit=30566"  
Attempt 1 start  
\*\*Best gene got replaced in generation 3. Gene details: Gene id=0 TF=31042, #Machines=5,  
content:Very long..., Summed Machines(30602,30954,30807,29425,31042)  
\*\*Best gene got replaced in generation 3. Gene details: Gene id=20 TF=30898,  
#Machines=5, content:Very long..., Summed Machines(30898,30763,30788,29963,30418)  
\*\*Best gene got replaced in generation 3. Gene details: Gene id=77 TF=30839,  
#Machines=5, content:Very long..., Summed Machines(30204,30218,30770,30799,30839)  
\*\*Best gene got replaced in generation 9. Gene details: Gene id=7 TF=30789, #Machines=5,  
content:Very long..., Summed Machines(30789,30579,30573,30284,30605)  
\*\*Best gene got replaced in generation 14. Gene details: Gene id=8 TF=30764,  
#Machines=5, content:Very long..., Summed Machines(30574,30764,30634,30268,30590)  
\*\*Best gene got replaced in generation 22. Gene details: Gene id=78 TF=30740,  
#Machines=5, content:Very long..., Summed Machines(30740,30329,30523,30514,30724)  
\*\*Best gene got replaced in generation 33. Gene details: Gene id=42 TF=30689,  
#Machines=5, content:Very long..., Summed Machines(30631,30416,30629,30689,30465)  
\*\*Best gene got replaced in generation 38. Gene details: Gene id=63 TF=30659,  
#Machines=5, content:Very long..., Summed Machines(30659,30464,30607,30482,30618)  
\*\*Best gene got replaced in generation 95. Gene details: Gene id=27 TF=30657,  
#Machines=5, content:Very long..., Summed Machines(30607,30563,30652,30351,30657)  
\*\*Best gene got replaced in generation 96. Gene details: Gene id=38 TF=30594,  
#Machines=5, content:Very long..., Summed Machines(30585,30553,30590,30508,30594)  
\*\*END On Gen=96  
\*\*Best gene found: Gene id=38 TF=30594, #Machines=5, content:Very long..., Summed  
Machines(30585,30553,30590,30508,30594)  
Attempt 1: popSize=100; gensNum=100; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=30594; DiffFromPerfectSplit=28  
Attempt 2 start  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=22 TF=31130,  
#Machines=5, content:Very long..., Summed Machines(31130,30957,30794,29639,30310)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=41 TF=31095,  
#Machines=5, content:Very long..., Summed Machines(31095,30467,30148,30319,30801)  
\*\*Best gene got replaced in generation 5. Gene details: Gene id=1 TF=30794, #Machines=5,  
content:Very long..., Summed Machines(30451,30227,30739,30619,30794)  
\*\*Best gene got replaced in generation 10. Gene details: Gene id=6 TF=30780,  
#Machines=5, content:Very long..., Summed Machines(30232,30607,30740,30780,30471)  
\*\*Best gene got replaced in generation 17. Gene details: Gene id=38 TF=30754,  
#Machines=5, content:Very long..., Summed Machines(30650,30705,30562,30754,30159)  
\*\*Best gene got replaced in generation 23. Gene details: Gene id=12 TF=30701,  
#Machines=5, content:Very long..., Summed Machines(30699,30701,30423,30620,30387)  
\*\*Best gene got replaced in generation 36. Gene details: Gene id=40 TF=30660,  
#Machines=5, content:Very long..., Summed Machines(30485,30533,30492,30660,30660)  
\*\*Best gene got replaced in generation 46. Gene details: Gene id=12 TF=30654,  
#Machines=5, content:Very long..., Summed Machines(30416,30654,30603,30532,30625)  
\*\*Best gene got replaced in generation 47. Gene details: Gene id=7 TF=30645,  
#Machines=5, content:Very long..., Summed Machines(30645,30585,30534,30464,30602)  
\*\*Best gene got replaced in generation 49. Gene details: Gene id=35 TF=30630,  
#Machines=5, content:Very long..., Summed Machines(30422,30608,30630,30600,30570)  
\*\*END On Gen=49  
\*\*Best gene found: Gene id=35 TF=30630, #Machines=5, content:Very long..., Summed  
Machines(30422,30608,30630,30600,30570)  
Attempt 2: popSize=50; gensNum=200; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=30630; DiffFromPerfectSplit=64  
Attempt 3 start  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=38 TF=31059,  
#Machines=5, content:Very long..., Summed Machines(30257,30641,30133,30740,31059)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=63 TF=31016,  
#Machines=5, content:Very long..., Summed Machines(30896,31016,30891,29883,30144)  
\*\*Best gene got replaced in generation 2. Gene details: Gene id=90 TF=30947,  
#Machines=5, content:Very long..., Summed Machines(30531,30789,30397,30947,30166)  
\*\*Best gene got replaced in generation 5. Gene details: Gene id=13 TF=30885,  
#Machines=5, content:Very long..., Summed Machines(30282,30639,30315,30885,30709)  
\*\*Best gene got replaced in generation 6. Gene details: Gene id=126 TF=30774,  
#Machines=5, content:Very long..., Summed Machines(30589,30270,30555,30642,30774)  
\*\*Best gene got replaced in generation 11. Gene details: Gene id=138 TF=30755,  
#Machines=5, content:Very long..., Summed Machines(30692,30486,30697,30755,30200)  
\*\*Best gene got replaced in generation 26. Gene details: Gene id=69 TF=30717,  
#Machines=5, content:Very long..., Summed Machines(30544,30603,30717,30558,30408)  
\*\*Best gene got replaced in generation 28. Gene details: Gene id=52 TF=30698,  
#Machines=5, content:Very long..., Summed Machines(30289,30698,30559,30673,30611)  
\*\*Best gene got replaced in generation 35. Gene details: Gene id=179 TF=30686,  
#Machines=5, content:Very long..., Summed Machines(30544,30686,30459,30489,30652)  
\*\*Best gene got replaced in generation 45. Gene details: Gene id=35 TF=30685,  
#Machines=5, content:Very long..., Summed Machines(30661,30685,30642,30221,30621)  
\*\*Best gene got replaced in generation 49. Gene details: Gene id=57 TF=30637,  
#Machines=5, content:Very long..., Summed Machines(30591,30563,30506,30533,30637)  
\*\*END On Gen=49  
\*\*Best gene found: Gene id=57 TF=30637, #Machines=5, content:Very long..., Summed  
Machines(30591,30563,30506,30533,30637)  
Attempt 3: popSize=200; gensNum=50; fintnessVersion=diffFromU; mutationPercet=0.05;  
mutationSize=0.05; TF=30637; DiffFromPerfectSplit=71  
"BestGene found on all attempts:Gene id=38 TF=30594, #Machines=5, content:Very long...,  
Summed Machines(30585,30553,30590,30508,30594)"  
"Total time: 132.362 seconds"

Number 4

"size=3500; sum=174550; avgJob=50; perfectSplit=34910"

Attempt 1 start

\*\*Best gene got replaced in generation 6. Gene details: Gene id=9 TF=35158, #Machines=5, content:Very long..., Summed Machines(34988,35158,34898,34880,34626)

\*\*Best gene got replaced in generation 7. Gene details: Gene id=88 TF=35045, #Machines=5, content:Very long..., Summed Machines(34979,34925,35045,34585,35016)

\*\*Best gene got replaced in generation 59. Gene details: Gene id=2 TF=34997, #Machines=5, content:Very long..., Summed Machines(34942,34906,34997,34775,34930)

\*\*Best gene got replaced in generation 72. Gene details: Gene id=61 TF=34992, #Machines=5, content:Very long..., Summed Machines(34910,34772,34904,34972,34992)

\*\*END On Gen=72

\*\*Best gene found: Gene id=61 TF=34992, #Machines=5, content:Very long..., Summed Machines(34910,34772,34904,34972,34992)

Attempt 1: popSize=100; gensNum=100; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=34992; DiffFromPerfectSplit=82

Attempt 2 start

\*\*Best gene got replaced in generation 4. Gene details: Gene id=22 TF=35264, #Machines=5, content:Very long..., Summed Machines(35264,34248,34907,35046,35085)

\*\*Best gene got replaced in generation 5. Gene details: Gene id=40 TF=35245, #Machines=5, content:Very long..., Summed Machines(35245,34963,35065,35237,34040)

\*\*Best gene got replaced in generation 9. Gene details: Gene id=8 TF=35107, #Machines=5, content:Very long..., Summed Machines(34727,35007,34787,35107,34922)

\*\*Best gene got replaced in generation 27. Gene details: Gene id=12 TF=35079, #Machines=5, content:Very long..., Summed Machines(35057,34480,35004,35079,34930)

\*\*Best gene got replaced in generation 30. Gene details: Gene id=42 TF=35052, #Machines=5, content:Very long..., Summed Machines(34980,35052,35049,34921,34548)

\*\*Best gene got replaced in generation 32. Gene details: Gene id=42 TF=35042, #Machines=5, content:Very long..., Summed Machines(34935,34900,35042,34954,34719)

\*\*Best gene got replaced in generation 37. Gene details: Gene id=29 TF=35029, #Machines=5, content:Very long..., Summed Machines(34980,34935,34710,35029,34896)

\*\*Best gene got replaced in generation 46. Gene details: Gene id=7 TF=35017, #Machines=5, content:Very long..., Summed Machines(34917,34996,34943,35017,34677)

\*\*Best gene got replaced in generation 46. Gene details: Gene id=23 TF=35012, #Machines=5, content:Very long..., Summed Machines(35004,35012,34905,34756,34873)

\*\*Best gene got replaced in generation 47. Gene details: Gene id=8 TF=34973, #Machines=5, content:Very long..., Summed Machines(34903,34971,34968,34973,34735)

\*\*END On Gen=47

\*\*Best gene found: Gene id=8 TF=34973, #Machines=5, content:Very long..., Summed Machines(34903,34971,34968,34973,34735)

Attempt 2: popSize=50; gensNum=200; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=34973; DiffFromPerfectSplit=63

Attempt 3 start

\*\*Best gene got replaced in generation 2. Gene details: Gene id=169 TF=35114, #Machines=5, content:Very long..., Summed Machines(35103,35114,34348,34993,34992)

\*\*Best gene got replaced in generation 8. Gene details: Gene id=114 TF=35037, #Machines=5, content:Very long..., Summed Machines(34558,34916,35035,35037,35004)

\*\*Best gene got replaced in generation 11. Gene details: Gene id=98 TF=35015, #Machines=5, content:Very long..., Summed Machines(34969,34906,35015,34718,34942)

\*\*Best gene got replaced in generation 27. Gene details: Gene id=122 TF=35002, #Machines=5, content:Very long..., Summed Machines(35002,34966,34819,34781,34982)

\*\*Best gene got replaced in generation 46. Gene details: Gene id=171 TF=34997, #Machines=5, content:Very long..., Summed Machines(34888,34940,34828,34897,34997)

\*\*END On Gen=46

\*\*Best gene found: Gene id=171 TF=34997, #Machines=5, content:Very long..., Summed Machines(34888,34940,34828,34897,34997)

Attempt 3: popSize=200; gensNum=50; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=34997; DiffFromPerfectSplit=87

"BestGene found on all attempts:Gene id=8 TF=34973, #Machines=5, content:Very long..., Summed Machines(34903,34971,34968,34973,34735)"

"Total time: 144.029 seconds"

Number 5

"size=4000; sum=201618; avgJob=51; perfectSplit=40324"

Attempt 1 start

\*\*Best gene got replaced in generation 3. Gene details: Gene id=32 TF=40846, #Machines=5, content:Very long..., Summed Machines(40406,40554,40846,39867,39945)

\*\*Best gene got replaced in generation 3. Gene details: Gene id=40 TF=40719, #Machines=5, content:Very long..., Summed Machines(40719,40032,40242,40036,40589)

\*\*Best gene got replaced in generation 3. Gene details: Gene id=54 TF=40624, #Machines=5, content:Very long..., Summed Machines(40108,40494,39799,40593,40624)

\*\*Best gene got replaced in generation 5. Gene details: Gene id=58 TF=40529, #Machines=5, content:Very long..., Summed Machines(40408,40100,40529,40345,40236)

\*\*Best gene got replaced in generation 6. Gene details: Gene id=56 TF=40507, #Machines=5, content:Very long..., Summed Machines(40162,40214,40451,40284,40507)

\*\*Best gene got replaced in generation 21. Gene details: Gene id=88 TF=40442, #Machines=5, content:Very long..., Summed Machines(40442,40024,40383,40404,40365)

\*\*Best gene got replaced in generation 82. Gene details: Gene id=78 TF=40408, #Machines=5, content:Very long..., Summed Machines(40408,40236,40370,40384,40220)

\*\*Best gene got replaced in generation 84. Gene details: Gene id=61 TF=40394, #Machines=5, content:Very long..., Summed Machines(40192,40394,40334,40315,40383)

\*\*END On Gen=84

\*\*Best gene found: Gene id=61 TF=40394, #Machines=5, content:Very long..., Summed Machines(40192,40394,40334,40315,40383)

Attempt 1: popSize=100; gensNum=100; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=40394; DiffFromPerfectSplit=70

Attempt 2 start

\*\*Best gene got replaced in generation 2. Gene details: Gene id=26 TF=40504, #Machines=5, content:Very long..., Summed Machines(40504,40475,39919,40368,40352)

\*\*Best gene got replaced in generation 28. Gene details: Gene id=35 TF=40474, #Machines=5, content:Very long..., Summed Machines(40179,40370,40243,40352,40474)

\*\*Best gene got replaced in generation 34. Gene details: Gene id=7 TF=40450, #Machines=5, content:Very long..., Summed Machines(40450,40321,40213,40320,40314)

\*\*Best gene got replaced in generation 40. Gene details: Gene id=28 TF=40419, #Machines=5, content:Very long..., Summed Machines(40419,40283,40333,40300,40283)

\*\*Best gene got replaced in generation 52. Gene details: Gene id=10 TF=40391, #Machines=5, content:Very long..., Summed Machines(40275,40214,40391,40389,40349)

\*\*Best gene got replaced in generation 63. Gene details: Gene id=11 TF=40347, #Machines=5, content:Very long..., Summed Machines(40314,40328,40347,40289,40340)

\*\*END On Gen=63

\*\*Best gene found: Gene id=11 TF=40347, #Machines=5, content:Very long..., Summed Machines(40314,40328,40347,40289,40340)

Attempt 2: popSize=50; gensNum=200; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=40347; DiffFromPerfectSplit=23

Attempt 3 start

\*\*Best gene got replaced in generation 2. Gene details: Gene id=19 TF=40671, #Machines=5, content:Very long..., Summed Machines(40210,40671,40014,40457,40266)

\*\*Best gene got replaced in generation 3. Gene details: Gene id=77 TF=40635, #Machines=5, content:Very long..., Summed Machines(40136,40449,40635,39951,40447)

\*\*Best gene got replaced in generation 5. Gene details: Gene id=113 TF=40588, #Machines=5, content:Very long..., Summed Machines(40584,40455,40588,39505,40486)

\*\*Best gene got replaced in generation 5. Gene details: Gene id=166 TF=40512, #Machines=5, content:Very long..., Summed Machines(40503,40338,40048,40217,40512)

\*\*Best gene got replaced in generation 17. Gene details: Gene id=87 TF=40504, #Machines=5, content:Very long..., Summed Machines(40435,40490,40504,40012,40177)

\*\*Best gene got replaced in generation 21. Gene details: Gene id=157 TF=40477, #Machines=5, content:Very long..., Summed Machines(40278,40477,40261,40334,40268)

\*\*Best gene got replaced in generation 22. Gene details: Gene id=108 TF=40430, #Machines=5, content:Very long..., Summed Machines(40362,40392,40251,40430,40183)

\*\*END On Gen=22

\*\*Best gene found: Gene id=108 TF=40430, #Machines=5, content:Very long..., Summed Machines(40362,40392,40251,40430,40183)

Attempt 3: popSize=200; gensNum=50; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=40430; DiffFromPerfectSplit=106

"BestGene found on all attempts:Gene id=11 TF=40347, #Machines=5, content:Very long..., Summed Machines(40314,40328,40347,40289,40340)"

"Total time: 155.238 seconds"

Number 6

"size=10000; sum=509918; avgJob=51; perfectSplit=101984"

Attempt 1 start

\*\*Best gene got replaced in generation 2. Gene details: Gene id=24 TF=102592, #Machines=5, content:Very long..., Summed Machines(102256,101885,102243,100942,102592)

\*\*Best gene got replaced in generation 3. Gene details: Gene id=30 TF=102423, #Machines=5, content:Very long..., Summed Machines(101428,101433,102423,102406,102228)

\*\*Best gene got replaced in generation 15. Gene details: Gene id=91 TF=102261, #Machines=5, content:Very long..., Summed Machines(102207,101616,101993,101841,102261)

\*\*Best gene got replaced in generation 17. Gene details: Gene id=92 TF=102175, #Machines=5, content:Very long..., Summed Machines(102123,101841,101956,102175,101823)

\*\*Best gene got replaced in generation 47. Gene details: Gene id=5 TF=102143, #Machines=5, content:Very long..., Summed Machines(102133,102126,102143,101998,101518)

\*\*Best gene got replaced in generation 63. Gene details: Gene id=17 TF=102089, #Machines=5, content:Very long..., Summed Machines(101894,101949,101916,102089,102070)

\*\*Best gene got replaced in generation 97. Gene details: Gene id=62 TF=102084, #Machines=5, content:Very long..., Summed Machines(102081,102008,102084,101809,101936)

\*\*END On Gen=97

\*\*Best gene found: Gene id=62 TF=102084, #Machines=5, content:Very long..., Summed Machines(102081,102008,102084,101809,101936)

Attempt 1: popSize=100; gensNum=100; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=102084; DiffFromPerfectSplit=100

Attempt 2 start

\*\*Best gene got replaced in generation 2. Gene details: Gene id=28 TF=102710, #Machines=5, content:Very long..., Summed Machines(102339,101956,100627,102710,102286)

\*\*Best gene got replaced in generation 6. Gene details: Gene id=23 TF=102592, #Machines=5, content:Very long..., Summed Machines(102592,100447,102289,102214,102376)

\*\*Best gene got replaced in generation 7. Gene details: Gene id=33 TF=102580, #Machines=5, content:Very long..., Summed Machines(102580,101063,102341,101869,102065)

\*\*Best gene got replaced in generation 8. Gene details: Gene id=14 TF=102508, #Machines=5, content:Very long..., Summed Machines(101526,101849,102368,102508,101667)

\*\*Best gene got replaced in generation 17. Gene details: Gene id=8 TF=102360, #Machines=5, content:Very long..., Summed Machines(102332,101807,101714,102360,101705)

\*\*Best gene got replaced in generation 20. Gene details: Gene id=1 TF=102254, #Machines=5, content:Very long..., Summed Machines(102254,102245,102054,101229,102136)

\*\*Best gene got replaced in generation 40. Gene details: Gene id=44 TF=102231, #Machines=5, content:Very long..., Summed Machines(101994,102231,102009,102128,101556)

\*\*Best gene got replaced in generation 44. Gene details: Gene id=4 TF=102149, #Machines=5, content:Very long..., Summed Machines(102087,102048,101735,102149,101899)

\*\*Best gene got replaced in generation 44. Gene details: Gene id=33 TF=102140, #Machines=5, content:Very long..., Summed Machines(102039,101904,102140,101937,101898)

\*\*Best gene got replaced in generation 56. Gene details: Gene id=17 TF=102109, #Machines=5, content:Very long..., Summed Machines(102102,102109,101671,102090,101946)

\*\*Best gene got replaced in generation 61. Gene details: Gene id=36 TF=102103, #Machines=5, content:Very long..., Summed Machines(102103,102054,101944,101729,102088)

\*\*Best gene got replaced in generation 62. Gene details: Gene id=2 TF=102093, #Machines=5, content:Very long..., Summed Machines(101997,102093,101963,101917,101948)

\*\*END On Gen=62

\*\*Best gene found: Gene id=2 TF=102093, #Machines=5, content:Very long..., Summed Machines(101997,102093,101963,101917,101948)

Attempt 2: popSize=50; gensNum=200; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=102093; DiffFromPerfectSplit=109

Attempt 3 start

\*\*Best gene got replaced in generation 2. Gene details: Gene id=63 TF=102505, #Machines=5, content:Very long..., Summed Machines(102505,102298,101743,102197,101175)

\*\*Best gene got replaced in generation 3. Gene details: Gene id=52 TF=102278, #Machines=5, content:Very long..., Summed Machines(101976,102278,101580,102009,102075)

\*\*Best gene got replaced in generation 10. Gene details: Gene id=69 TF=102103, #Machines=5, content:Very long..., Summed Machines(102058,102103,102063,101627,102067)

\*\*Best gene got replaced in generation 30. Gene details: Gene id=133 TF=102101, #Machines=5, content:Very long..., Summed Machines(102025,102101,102014,101794,101984)

\*\*END On Gen=30

\*\*Best gene found: Gene id=133 TF=102101, #Machines=5, content:Very long..., Summed Machines(102025,102101,102014,101794,101984)

Attempt 3: popSize=200; gensNum=50; fintnessVersion=diffFromU; mutationPercet=0.05; mutationSize=0.05; TF=102101; DiffFromPerfectSplit=117

"BestGene found on all attempts:Gene id=62 TF=102084, #Machines=5, content:Very long..., Summed Machines(102081,102008,102084,101809,101936)"

"Total time: 297.748 seconds"