

קלטים של בעיקר 1000 משימות שהוגרלו לא יוניפורמית בסדר מכונות עולה :

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"-----START 1 from 37-----"

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----Our Results-----

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best from Our local search found:
target function = 18807, num of machines=5, square root lms=0
"----Comparison for the 0 example----"
"***tf from benchmark was 18807(we added the number of machines) and target function
from our local search is 18807"
***RESULT IS THE SAME
Run time: 465.877 seconds
"Correct (size-numberCorrect):" QMap((1000, 1))
"Mistakes(size-numberMistakes):" QMap()
"Avegare error: nan"
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"-----END 1 from 37-----"
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"-----START 2 from 37-----"
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----Our Results-----

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best from Our local search found:
target function = 18810, num of machines=5, square root lms=0
"----Comparison for the 1 example----"
"***tf from benchmark was 18810(we added the number of machines) and target function
from our local search is 18810"
***RESULT IS THE SAME
Run time: 0.396 seconds
"Correct (size-numberCorrect):" QMap((1000, 2))
"Mistakes(size-numberMistakes):" QMap()
"Avegare error: 0"
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"-----END 2 from 37-----"
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"-----START 3 from 37-----"
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***SOLUTION Data from file SOL_NU_1_05_1000_2.txt: machinesNum=5
jobsNum=1000 lowerBound=18802 upperBound=18802 isOptimal=1"
Content of machines summed (18802, 18802, 18802, 18802, 18798)
input selected: size 1000 sum 94006
startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18807, num of machines=5, square root lms=0

"----Comparison for the 2 example----

***tf from benchmark was 18807(we added the number of machines) and target function
from our local search is 18807"

***RESULT IS THE SAME

Run time: 1.142 seconds

"Correct (size-numberCorrect):" QMap((1000, 3))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 3 from 37-----"

"-----START 4 from 37-----"

"input file number 4: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_3.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_3.txt"

***Data from file NU_1_1000_05_3.txt: machinesNum=5 jobsNum=1000"

***SOLUTION Data from file SOL_NU_1_05_1000_3.txt: machinesNum=5
jobsNum=1000 lowerBound=18822 upperBound=18822 isOptimal=1"

Content of machines summed (18822, 18822, 18822, 18822, 18821)

input selected: size 1000 sum 94109

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18827, num of machines=5, square root lms=0

"----Comparison for the 3 example----

***tf from benchmark was 18827(we added the number of machines) and target function
from our local search is 18827"

***RESULT IS THE SAME

Run time: 8.477 seconds

"Correct (size-numberCorrect):" QMap((1000, 4))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 4 from 37-----"

"-----START 5 from 37-----"

"input file number 5: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_4.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_4.txt"

***Data from file NU_1_1000_05_4.txt: machinesNum=5 jobsNum=1000"

***SOLUTION Data from file SOL_NU_1_05_1000_4.txt: machinesNum=5
jobsNum=1000 lowerBound=18813 upperBound=18813 isOptimal=1"

Content of machines summed (18813, 18813, 18813, 18813, 18809)

input selected: size 1000 sum 94061

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18818, num of machines=5, square root lms=0

"----Comparison for the 4 example----

****tf from benchmark was 18818(we added the number of machines) and target function from our local search is 18818"

***RESULT IS THE SAME

Run time: 0.566 seconds

"Correct (size-numberCorrect):" QMap((1000, 5))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 5 from 37-----"

"-----START 6 from 37-----"

"input file number 6: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_5.txt and solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_5.txt"

****Data from file NU_1_1000_05_5.txt: machinesNum=5 jobsNum=1000"

****SOLUTION Data from file SOL_NU_1_05_1000_5.txt: machinesNum=5

jobsNum=1000 lowerBound=18825 upperBound=18825 isOptimal=1"

Content of machines summed (18825, 18825, 18825, 18825, 18821)

input selected: size 1000 sum 94121

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18830, num of machines=5, square root lms=0

"----Comparison for the 5 example----

****tf from benchmark was 18830(we added the number of machines) and target function from our local search is 18830"

***RESULT IS THE SAME

Run time: 4.687 seconds

"Correct (size-numberCorrect):" QMap((1000, 6))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 6 from 37-----"

"-----START 7 from 37-----"

"input file number 7: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_6.txt and solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_6.txt"

****Data from file NU_1_1000_05_6.txt: machinesNum=5 jobsNum=1000"

****SOLUTION Data from file SOL_NU_1_05_1000_6.txt: machinesNum=5

jobsNum=1000 lowerBound=18808 upperBound=18808 isOptimal=1"

Content of machines summed (18808, 18808, 18808, 18808, 18807)

input selected: size 1000 sum 94039

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18813, num of machines=5, square root lms=0

"----Comparison for the 6 example----

****tf from benchmark was 18813(we added the number of machines) and target function from our local search is 18813"

***RESULT IS THE SAME

Run time: 4.078 seconds

"Correct (size-numberCorrect):" QMap((1000, 7))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 7 from 37-----"

"-----START 8 from 37-----"

"input file number 8: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_7.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_7.txt"

***Data from file NU_1_1000_05_7.txt: machinesNum=5 jobsNum=1000"

***SOLUTION Data from file SOL_NU_1_05_1000_7.txt: machinesNum=5

jobsNum=1000 lowerBound=18819 upperBound=18819 isOptimal=1"

Content of machines summed (18819, 18819, 18819, 18819, 18818)

input selected: size 1000 sum 94094

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18824, num of machines=5, square root lms=0

"----Comparison for the 7 example----

***tf from benchmark was 18824(we added the number of machines) and target function
from our local search is 18824"

***RESULT IS THE SAME

Run time: 0.723 seconds

"Correct (size-numberCorrect):" QMap((1000, 8))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 8 from 37-----"

"-----START 9 from 37-----"

"input file number 9: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_8.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_8.txt"

***Data from file NU_1_1000_05_8.txt: machinesNum=5 jobsNum=1000"

***SOLUTION Data from file SOL_NU_1_05_1000_8.txt: machinesNum=5

jobsNum=1000 lowerBound=18821 upperBound=18821 isOptimal=1"

Content of machines summed (18821, 18821, 18821, 18821, 18818)

input selected: size 1000 sum 94102

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18826, num of machines=5, square root lms=0

"----Comparison for the 8 example----

***tf from benchmark was 18826(we added the number of machines) and target function
from our local search is 18826"

***RESULT IS THE SAME

Run time: 3.857 seconds

"Correct (size-numberCorrect):" QMap((1000, 9))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 9 from 37-----"

"-----START 10 from 37-----"
"input file number 10: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_05_9.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_05_1000_9.txt"
"***Data from file NU_1_1000_05_9.txt: machinesNum=5 jobsNum=1000"
"***SOLUTION Data from file SOL_NU_1_05_1000_9.txt: machinesNum=5
jobsNum=1000 lowerBound=18806 upperBound=18806 isOptimal=1"
Content of machines summed (18806, 18806, 18806, 18806, 18802)
input selected: size 1000 sum 94026
startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 18811, num of machines=5, square root lms=0

"----Comparison for the 9 example----

****tf from benchmark was 18811(we added the number of machines) and target function
from our local search is 18811"

***RESULT IS THE SAME

Run time: 41.599 seconds

"Correct (size-numberCorrect):" QMap((1000, 10))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 10 from 37-----"

"-----START 11 from 37-----"

"input file number 11: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_0.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_0.txt"
"***Data from file NU_1_1000_10_0.txt: machinesNum=10 jobsNum=1000"
"***SOLUTION Data from file SOL_NU_1_10_1000_0.txt: machinesNum=10
jobsNum=1000 lowerBound=9410 upperBound=9410 isOptimal=1"
Content of machines summed (9410, 9410, 9410, 9410, 9410, 9410, 9410, 9410, 9410, 9401)
input selected: size 1000 sum 94091
startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 9420, num of machines=10, square root lms=0

"----Comparison for the 10 example----

****tf from benchmark was 9420(we added the number of machines) and target function
from our local search is 9420"

***RESULT IS THE SAME

Run time: 345.141 seconds

"Correct (size-numberCorrect):" QMap((1000, 11))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 11 from 37-----"

"-----START 12 from 37-----"

"input file number 12: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_1.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_1.txt"
"***Data from file NU_1_1000_10_1.txt: machinesNum=10 jobsNum=1000"
"***SOLUTION Data from file SOL_NU_1_10_1000_1.txt: machinesNum=10
jobsNum=1000 lowerBound=9422 upperBound=9422 isOptimal=1"

Content of machines summed (9422, 9422, 9421, 9421, 9421, 9421, 9421, 9421, 9421, 9421)
input selected: size 1000 sum 94212
startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 9432, num of machines=10, square root lms=0

"----Comparison for the 11 example----

****tf from benchmark was 9432(we added the number of machines) and target function
from our local search is 9432"

***RESULT IS THE SAME

Run time: 0.019 seconds

"Correct (size-numberCorrect):" QMap((1000, 12))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 12 from 37-----"

"-----START 13 from 37-----"

"input file number 13: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_2.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_2.txt"

****Data from file NU_1_1000_10_2.txt: machinesNum=10 jobsNum=1000"

****SOLUTION Data from file SOL_NU_1_10_1000_2.txt: machinesNum=10

jobsNum=1000 lowerBound=9403 upperBound=9403 isOptimal=1"

Content of machines summed (9403, 9403, 9403, 9403, 9403, 9403, 9403, 9403, 9403, 9397)

input selected: size 1000 sum 94024

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 9413, num of machines=10, square root lms=0

"----Comparison for the 12 example----

****tf from benchmark was 9413(we added the number of machines) and target function
from our local search is 9413"

***RESULT IS THE SAME

Run time: 294.87 seconds

"Correct (size-numberCorrect):" QMap((1000, 13))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 13 from 37-----"

"-----START 14 from 37-----"

"input file number 14: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_3.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_3.txt"

****Data from file NU_1_1000_10_3.txt: machinesNum=10 jobsNum=1000"

****SOLUTION Data from file SOL_NU_1_10_1000_3.txt: machinesNum=10

jobsNum=1000 lowerBound=9397 upperBound=9397 isOptimal=1"

Content of machines summed (9397, 9397, 9397, 9397, 9397, 9397, 9397, 9397, 9397, 9395)

input selected: size 1000 sum 93968

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 9407, num of machines=10, square root lms=0
 "----Comparison for the 13 example----"
 "****tf from benchmark was 9407(we added the number of machines) and target function
 from our local search is 9407"
 ***RESULT IS THE SAME
 Run time: 49.827 seconds
 "Correct (size-numberCorrect):" QMap((1000, 14))
 "Mistakes(size-numberMistakes):" QMap()
 "Avegare error: 0"
 "-----END 14 from 37-----"
 "-----START 15 from 37-----"
 "input file number 15: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_4.txt and
 solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_4.txt"
 "****Data from file NU_1_1000_10_4.txt: machinesNum=10 jobsNum=1000"
 "****SOLUTION Data from file SOL_NU_1_10_1000_4.txt: machinesNum=10
 jobsNum=1000 lowerBound=9409 upperBound=9409 isOptimal=1"
 Content of machines summed (9409, 9409, 9409, 9409, 9409, 9409, 9409, 9409, 9409, 9404)
 input selected: size 1000 sum 94085
 startAlg "LPT"

----Our Results-----

best from Our local search found:
 target function = 9419, num of machines=10, square root lms=0
 "----Comparison for the 14 example----"
 "****tf from benchmark was 9419(we added the number of machines) and target function
 from our local search is 9419"
 ***RESULT IS THE SAME
 Run time: 328.389 seconds
 "Correct (size-numberCorrect):" QMap((1000, 15))
 "Mistakes(size-numberMistakes):" QMap()
 "Avegare error: 0"
 "-----END 15 from 37-----"
 "-----START 16 from 37-----"
 "input file number 16: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_5.txt and
 solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_5.txt"
 "****Data from file NU_1_1000_10_5.txt: machinesNum=10 jobsNum=1000"
 "****SOLUTION Data from file SOL_NU_1_10_1000_5.txt: machinesNum=10
 jobsNum=1000 lowerBound=9405 upperBound=9405 isOptimal=1"
 Content of machines summed (9405, 9405, 9405, 9405, 9405, 9405, 9405, 9405, 9405, 9401)
 input selected: size 1000 sum 94046
 startAlg "LPT"

----Our Results-----

best from Our local search found:
 target function = 9415, num of machines=10, square root lms=0
 "----Comparison for the 15 example----"
 "****tf from benchmark was 9415(we added the number of machines) and target function
 from our local search is 9415"
 ***RESULT IS THE SAME
 Run time: 743.499 seconds


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"Correct (size-numberCorrect):" QMap((1000, 16))
"Mistakes(size-numberMistakes):" QMap()
"Avegare error: 0"
"-----END 16 from 37-----"
"-----START 17 from 37-----"
"input file number 17: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_6.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_6.txt"
"***Data from file NU_1_1000_10_6.txt: machinesNum=10 jobsNum=1000"
"***SOLUTION Data from file SOL_NU_1_10_1000_6.txt: machinesNum=10
jobsNum=1000 lowerBound=9389 upperBound=9389 isOptimal=1"
Content of machines summed (9389, 9389, 9389, 9389, 9389, 9389, 9389, 9389, 9389, 9388)
input selected: size 1000 sum 93889
startAlg "LPT"

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----Our Results-----

best from Our local search found:

target function = 9399, num of machines=10, square root lms=0

"----Comparison for the 16 example----

****tf from benchmark was 9399(we added the number of machines) and target function
from our local search is 9399"

***RESULT IS THE SAME

Run time: 76.758 seconds

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"Correct (size-numberCorrect):" QMap((1000, 17))

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"Mistakes(size-numberMistakes):" QMap()

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"Avegare error: 0"

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"-----END 17 from 37-----"

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"-----START 18 from 37-----"

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"input file number 18: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_7.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_7.txt"

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"***Data from file NU_1_1000_10_7.txt: machinesNum=10 jobsNum=1000"

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"***SOLUTION Data from file SOL_NU_1_10_1000_7.txt: machinesNum=10

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jobsNum=1000 lowerBound=9409 upperBound=9409 isOptimal=1"

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Content of machines summed (9409, 9409, 9409, 9409, 9409, 9409, 9409, 9409, 9409, 9401)

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```

input selected: size 1000 sum 94082

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```

startAlg "LPT"

```

----Our Results-----

best from Our local search found:

target function = 9419, num of machines=10, square root lms=0

"----Comparison for the 17 example----

****tf from benchmark was 9419(we added the number of machines) and target function
from our local search is 9419"

***RESULT IS THE SAME

Run time: 112.441 seconds

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"Correct (size-numberCorrect):" QMap((1000, 18))

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"Mistakes(size-numberMistakes):" QMap()

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```

"Avegare error: 0"

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"-----END 18 from 37-----"

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"-----START 19 from 37-----"

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"input file number 19: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_8.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_8.txt"
"***Data from file NU_1_1000_10_8.txt: machinesNum=10 jobsNum=1000"
"***SOLUTION Data from file SOL_NU_1_10_1000_8.txt: machinesNum=10
jobsNum=1000 lowerBound=9398 upperBound=9398 isOptimal=1"
Content of machines summed (9398, 9398, 9398, 9398, 9398, 9398, 9398, 9398, 9398, 9398)
input selected: size 1000 sum 93980
startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 9408, num of machines=10, square root lms=0

"----Comparison for the 18 example----

****tf from benchmark was 9408(we added the number of machines) and target function
from our local search is 9408"

***RESULT IS THE SAME

Run time: 361.041 seconds

"Correct (size-numberCorrect):" QMap((1000, 19))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 19 from 37-----"

"-----START 20 from 37-----"

"input file number 20: inputName=C:/algo/h3/docs/benchMark/all/NU_1_1000_10_9.txt and
solutionName=C:/algo/h3/docs/benchMark/all/SOL_NU_1_10_1000_9.txt"

***Data from file NU_1_1000_10_9.txt: machinesNum=10 jobsNum=1000"

***SOLUTION Data from file SOL_NU_1_10_1000_9.txt: machinesNum=10

jobsNum=1000 lowerBound=9407 upperBound=9407 isOptimal=1"

Content of machines summed (9407, 9407, 9407, 9407, 9407, 9407, 9407, 9407, 9407, 9400)

input selected: size 1000 sum 94063

startAlg "LPT"

----Our Results-----

best from Our local search found:

target function = 9417, num of machines=10, square root lms=0

"----Comparison for the 19 example----

****tf from benchmark was 9417(we added the number of machines) and target function
from our local search is 9417"

***RESULT IS THE SAME

Run time: 306.852 seconds

"Correct (size-numberCorrect):" QMap((1000, 20))

"Mistakes(size-numberMistakes):" QMap()

"Avegare error: 0"

"-----END 20 from 37-----"