

## דו"ח 1 - חיפוש לוקאלי עבור $10 > K$

קלט 1 (אינקס 152 – קלט קטן על מנת שיהיה יותר קל לקרוא)

• BNB הניב את זה:

input selected: (48, 35, 34, 34, 33, 32, 31, 27, 25, 23, 22, 22, 21, 19, 17, 11, 11, 11, 9, 9, 7, 7, 4, 2, 1) size 25 sum 495

#####bestSolutionFound just got replaced "Target function=62 Number of Machines=10 . Content:

<48,4>,<35,11,2,1>,<34,11,7>,<34,11>,<33,17>,<32,9,9>,<31,19>,<27,21>,<25,23>,<22,22,7>" #####

#####bestSolutionFound just got replaced "Target function=61 Number of Machines=10 . Content:

<48,2,1>,<35,11,4>,<34,17>,<34,11>,<33,11,7>,<32,19>,<31,9,9>,<27,23>,<25,22>,<22,21,7>" #####

BEST FOUND: "Target function=61 Number of Machines=10 . Content:

<48,2,1>,<35,11,4>,<34,17>,<34,11>,<33,11,7>,<32,19>,<31,9,9>,<27,23>,<25,22>,<22,21,7>"

nodes seen: 17105 . run time: 0.406 seconds

○ אנו רואים שLPT לא מניב את האופטימום. יש שיפור מ 62 ל 61

• LOCAL SEARCH:

input selected: (48, 35, 34, 34, 33, 32, 31, 27, 25, 23, 22, 22, 21, 19, 17, 11, 11, 11, 9, 9, 7, 7, 4, 2, 1) size 25 sum 495

○ פתרון התחלתי של LPT עבור 10 תאים:

Start ----- startSol:

target function = 62, num of machines=10

machines content:

bucket1 sum:52, content= (48, 4)

bucket2 sum:49, content= (35, 11, 2, 1)

bucket3 sum:52, content= (34, 11, 7)

bucket4 sum:45, content= (34, 11)

bucket5 sum:50, content= (33, 17)

bucket6 sum:50, content= (32, 9, 9)

bucket7 sum:50, content= (31, 19)

bucket8 sum:48, content= (27, 21)  
bucket9 sum:48, content= (25, 23)  
bucket10 sum:51, content= (22, 22, 7)

○ פתרון התחלתי של BESTFIT עבור 10 תאים (מחקנו את הפירוט כדי לא להעמיס טקסט)

target function = 67, num of machines=10

○ פתרון מנצח (LPT ניצח):

END ----- bestSolutionFound for alg LPT found:

target function = 61, num of machines=10

machines content:

bucket1 sum:48, content= (48)  
bucket2 sum:46, content= (35, 11)  
bucket3 sum:51, content= (33, 11, 7)  
bucket4 sum:49, content= (34, 11, 4)  
bucket5 sum:51, content= (34, 17)  
bucket6 sum:50, content= (32, 9, 9)  
bucket7 sum:50, content= (31, 19)  
bucket8 sum:48, content= (27, 21)  
bucket9 sum:51, content= (25, 23, 2, 1)  
bucket10 sum:51, content= (22, 22, 7)

Run time: 2.157 seconds

○ כמו שניתן לראות LOCAL SEARCH הצליח להגיע לאופטימום.

● הגרלנו 952 משימות ושמרנו לשימוש עתידי

[illegible]



bucket5 sum:4740, content= (100, 99, 99, 97, 97, 96, 95, 94, 93, 92, 90, 90, 88, 87, 86, 85, 83, 82, 80, 80, 77, 76, 75, 74, 73, 71, 71, 68, 68, 67, 65, 65, 64, 62, 62, 60, 60, 59, 58, 58, 57, 56, 55, 54, 53, 53, 52, 51, 50, 49, 49, 47, 47, 46, 45, 44, 42, 42, 40, 40, 38, 37, 36, 34, 33, 31, 30, 30, 28, 26, 25, 24, 22, 20, 20, 18, 17, 17, 15, 15, 13, 12, 11, 10, 10, 9, 8, 7, 7, 5, 4, 3, 3, 2, 2)

bucket6 sum:4740, content= (100, 99, 98, 98, 97, 96, 95, 94, 93, 92, 90, 90, 88, 87, 86, 85, 83, 82, 80, 79, 78, 76, 75, 74, 73, 71, 71, 68, 68, 66, 66, 65, 64, 62, 61, 61, 60, 59, 58, 58, 57, 56, 54, 54, 54, 53, 52, 51, 50, 49, 48, 48, 47, 46, 45, 44, 42, 42, 40, 39, 39, 37, 35, 34, 34, 31, 30, 30, 27, 27, 25, 23, 23, 20, 20, 18, 17, 17, 15, 15, 13, 12, 11, 10, 10, 9, 8, 7, 7, 5, 4, 3, 3, 2, 2)

bucket7 sum:4740, content= (100, 99, 98, 98, 97, 96, 95, 94, 93, 92, 90, 89, 89, 87, 86, 85, 83, 81, 81, 79, 78, 76, 75, 74, 72, 72, 70, 69, 68, 66, 66, 65, 64, 62, 61, 61, 60, 59, 58, 58, 57, 55, 55, 54, 54, 53, 52, 51, 50, 49, 48, 48, 46, 46, 46, 43, 43, 42, 40, 39, 38, 38, 35, 34, 32, 32, 31, 29, 29, 26, 25, 23, 23, 20, 20, 18, 17, 16, 16, 15, 13, 12, 11, 10, 10, 9, 8, 7, 6, 5, 5, 3, 3, 2, 2)

bucket8 sum:4740, content= (100, 99, 98, 98, 96, 96, 95, 95, 92, 92, 91, 89, 89, 87, 86, 85, 83, 81, 81, 78, 78, 76, 76, 74, 72, 72, 70, 69, 67, 67, 66, 65, 63, 63, 61, 61, 60, 59, 58, 58, 57, 55, 55, 54, 54, 52, 52, 51, 51, 49, 48, 48, 46, 46, 45, 44, 43, 42, 40, 39, 38, 38, 35, 34, 32, 32, 31, 29, 29, 26, 25, 23, 22, 21, 19, 19, 17, 16, 16, 14, 14, 12, 11, 10, 10, 9, 8, 7, 6, 5, 5, 3, 3, 2, 2)

bucket9 sum:4740, content= (100, 99, 98, 98, 96, 96, 95, 94, 94, 91, 91, 89, 88, 88, 86, 85, 82, 82, 81, 78, 78, 76, 75, 74, 74, 71, 69, 69, 68, 67, 66, 65, 63, 63, 61, 61, 60, 59, 58, 58, 56, 56, 55, 54, 54, 52, 52, 51, 51, 49, 48, 47, 47, 46, 45, 44, 43, 42, 40, 39, 38, 37, 36, 34, 32, 32, 31, 29, 27, 27, 25, 24, 22, 21, 19, 19, 17, 16, 16, 14, 14, 11, 11, 11, 10, 9, 8, 7, 6, 5, 4, 4, 3, 2, 2)

bucket10 sum:4740, content= (100, 99, 98, 98, 96, 96, 95, 94, 94, 91, 91, 89, 88, 88, 86, 84, 83, 82, 81, 78, 78, 76, 75, 74, 74, 71, 69, 69, 68, 67, 66, 65, 63, 63, 61, 61, 60, 59, 58, 58, 56, 56, 55, 54, 53, 53, 52, 51, 50, 50, 48, 47, 47, 46, 45, 44, 43, 42, 40, 39, 38, 36, 36, 35, 32, 32, 31, 29, 27, 27, 25, 24, 22, 21, 19, 18, 18, 16, 16, 14, 14, 11, 11, 11, 10, 9, 8, 7, 6, 5, 4, 4, 3, 2, 1, 1)

BEST FIT •

"Starting BESTFIT"

Start ----- startSol found:



