

1. Easy one (FULL debug messages – input17):

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#####bestSolutionFound just got replaced "Target function=292 Number of Machines=2 . Content:
<290>,<10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10>" #####
*New Sub Tree Parent- depth=0 "U=292 L=291. Machines:<290>. jobs Left:
<10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10>" "current active(job=10)"
depth:1 "son0" "U=302 L=301. Machines:<290,10>. jobs Left:
<10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10>"
CUTOFF was made. job on hand: <10>. lower bound=301 is bigger than best solution so far=292
depth:1 "son1" "U=292 L=292. Machines:<290>,<10>. jobs Left:
<10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10>"
CUTOFF was made. job on hand: <10>. lower bound=292 is bigger than best solution so far=292
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2. Random(medium debug messages– input18):

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#####bestSolutionFound just got replaced "Target function=81 Number of Machines=10 . Content:
<48,22,1>,<47,20,2>,<44,25>,<42,25>,<42,19,9>,<39,31>,<37,33>,<37,32>,<30,18,18,5>,<17,12,10,10,8,7,6>" #####

#####bestSolutionFound just got replaced "Target function=80 Number of Machines=10 . Content:
<48,22>,<47,18,5>,<44,25,1>,<42,25,2>,<42,20,8>,<39,31>,<37,33>,<37,32>,<30,19,12,9>,<18,17,10,10,7,6>" #####
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BEST FOUND: "Target function=80 Number of Machines=10 . Content:
<48,22>,<47,18,5>,<44,25,1>,<42,25,2>,<42,20,8>,<39,31>,<37,33>,<37,32>,<30,19,12,9>,<18,17,10,10,7,6>" nodes seen: 591714 . run time:
38.251 seconds

3. Random Higher values(medium debug messages– input19):

input selected: (730, 620, 600, 525, 510, 490, 425, 415, 335, 330, 325, 320, 310, 310, 290, 270, 210, 190, 190, 170, 150, 140, 120, 110, 90, 90, 90, 80, 50, 10)

size 30 **sum 8495**

#####bestSolutionFound just got replaced "Target function=880 Number of Machines=10 . Content:

<730,120,10>,<620,190,50>,<600,190,80>,<525,210,110>,<510,270,90>,<490,290,90>,<425,310,90>,<415,310,140>,<335,330,150>,<325,320,170>"

#####

#####bestSolutionFound just got replaced "Target function=875 Number of Machines=10 . Content:

<730,120,10>,<620,210>,<600,170,90>,<525,335>,<510,330>,<490,325,50>,<425,415>,<320,310,190>,<310,290,150,110>,<270,190,140,90,90,80>"

#####

#####bestSolutionFound just got replaced "Target function=870 Number of Machines=10 . Content:

<730,80,50>,<620,210,10>,<600,170,90>,<525,335>,<510,330>,<490,325>,<425,415>,<320,310,140,90>,<310,290,150,110>,<270,190,190,120,90>"

#####

#####bestSolutionFound just got replaced "Target function=865 Number of Machines=10 . Content:

<730,120>,<620,140,90>,<600,170,80>,<525,330>,<510,335,10>,<490,310,50>,<425,415>,<325,320,210>,<310,290,150,90>,<270,190,190,110,90>"

#####

#####bestSolutionFound just got replaced "Target function=860 Number of Machines=10 . Content:

<730,120>,<620,140,90>,<600,170,80>,<525,325>,<510,335>,<490,310,50>,<425,415,10>,<330,310,210>,<320,290,150,90>,<270,190,190,110,90>"

#####

BEST FOUND: "Target function=860 Number of Machines=10 . Content:

<730,120>,<620,140,90>,<600,170,80>,<525,325>,<510,335>,<490,310,50>,<425,415,10>,<330,310,210>,<320,290,150,90>,<270,190,190,110,90>"

nodes seen: 24291225 . run time: 477.131 seconds

4. Old input (medium debug messages -input 15)

input selected: (48, 35, 34, 34, 33, 32, 32, 31, 29, 27, 25, 23, 22, 22, 22, 21, 19, 17, 17, 11, 11, 11, 9, 9, 7, 7, 4, 2, 1) size 29 **sum 595**

#####bestSolutionFound just got replaced "Target function=72 Number of Machines=10 . Content:
<48,11,2,1>,<35,19,7>,<34,17,11>,<34,17,11>,<33,21,7>,<32,22,4>,<32,22>,<31,22,9>,<29,23,9>,<27,25>" #####

#####bestSolutionFound just got replaced "Target function=71 Number of Machines=10 . Content:
<48,11,2>,<35,25,1>,<34,27>,<34,23,4>,<33,22>,<32,29>,<32,22,7>,<31,22,7>,<21,19,17>,<17,11,11,9,9>" #####

#####bestSolutionFound just got replaced "Target function=70 Number of Machines=10 . Content:
<48,11,1>,<35,25>,<34,23,2>,<34,22,4>,<33,27>,<32,21,7>,<32,19,9>,<31,29>,<22,22,9,7>,<17,17,11,11>" #####

**BEST FOUND: "Target function=70 Number of Machines=10 . Content:
<48,11,1>,<35,25>,<34,23,2>,<34,22,4>,<33,27>,<32,21,7>,<32,19,9>,<31,29>,<22,22,9,7>,<17,17,11,11>"
nodes seen: 2329452 . run time: 164.717 seconds**

5. Old input (medium debug messages -input 16)

input selected: (48, 35, 34, 34, 33, 32, 32, 31, 29, 25, 23, 23, 22, 22, 22, 21, 19, 17, 17, 15, 11, 11, 11, 9, 9, 7, 7, 4, 2, 1) size 30 **sum 606**

#####bestSolutionFound just got replaced "Target function=73 Number of Machines=10 . Content:
<48,15>,<35,19,9>,<34,17,11,1>,<34,17,11>,<33,21,9>,<32,22,7,2>,<32,22,7>,<31,22,4>,<29,23,11>,<25,23>" #####

#####bestSolutionFound just got replaced "Target function=72 Number of Machines=10 . Content:
<48,11,2,1>,<35,25>,<34,23,4>,<34,23>,<33,29>,<32,22,7>,<32,22,7>,<31,22,9>,<21,19,11,11>,<17,17,15,9>" #####

#####bestSolutionFound just got replaced "Target function=71 Number of Machines=10 . Content:
<48,11,2>,<35,25,1>,<34,23,4>,<34,23>,<33,21,7>,<32,29>,<32,22,7>,<31,19,11>,<22,22,17>,<17,15,11,9,9>" #####

**BEST FOUND: "Target function=71 Number of Machines=10 . Content:
<48,11,2>,<35,25,1>,<34,23,4>,<34,23>,<33,21,7>,<32,29>,<32,22,7>,<31,19,11>,<22,22,17>,<17,15,11,9,9>"
nodes seen: 8806503 . run time: 610.822 seconds**