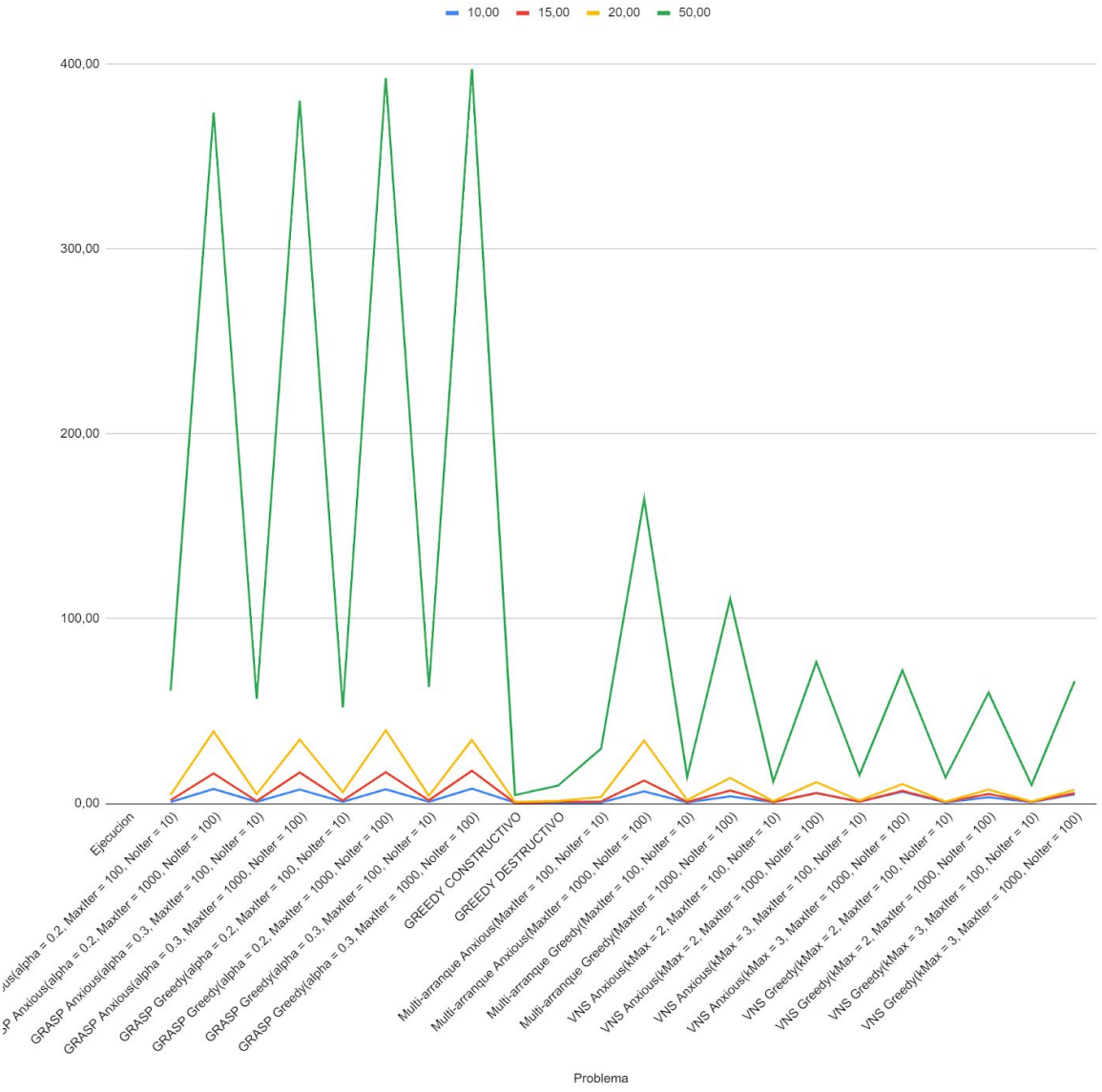
RUNTIME EN MILISEGUNDOS



| Problema | Nodos | Mejor solucion conocida | Solucion | Ejecucion | Md | Run time | AVG Md | AVG Run Time |
|---|---|---|---|---|---|---|---|---|
| max-mean-div-10.txt | 10 | 14 | {6, 7, 8, 5, 3, 4} | 1 | 13,00 | 0,04ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {2, 4, 0, 6, 7, 8, 5} | 2 | 10,14 | 0,04ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {6, 7, 8, 5, 9, 4} | 3 | 14,00 | 0,03ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {2, 4, 0, 6, 7, 8, 5} | 4 | 10,14 | 0,16ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {5, 8, 6, 7, 9, 4} | 5 | 14,00 | 0,04ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {5, 8, 6, 7, 9, 4} | 6 | 14,00 | 0,03ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {5, 8, 6, 7, 9, 4} | 7 | 14,00 | 0,03ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {2, 4, 0, 6, 7, 5, 8} | 8 | 10,14 | 0,03ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {6, 7, 8, 5, 9, 4} | 9 | 14,00 | 0,03ms | - | - |
| max-mean-div-10.txt | 10 | 14 | {2, 4, 0, 6, 7, 5, 8} | 10 | 10,14 | 0,03ms | - | - |
| **max-mean-div-10.txt** | **10** | **14** | - | **total = 10** | - | - | **12,35716** | **0,44ms** |
| max-mean-div-15.txt | 15 | 9,83333 | {8, 11, 4, 10} | 1 | 9,75 | 0,03ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {3, 10, 1, 8} | 2 | 9,50 | 0,02ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {3, 10, 1, 8} | 3 | 9,50 | 0,03ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {13, 14, 9, 3} | 4 | 7,50 | 0,03ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {3, 10, 1, 8} | 5 | 9,50 | 0,04ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {13, 14, 9, 3} | 6 | 7,50 | 0,02ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {13, 14, 9, 3} | 7 | 7,50 | 0,03ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {8, 11, 4, 10} | 8 | 9,75 | 0,04ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {3, 10, 1, 8} | 9 | 9,50 | 0,03ms | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {8, 11, 4, 10} | 10 | 9,75 | 0,05ms | - | - |
| **max-mean-div-15.txt** | **15** | **9,83333** | - | **total = 10** | - | - | **8,975** | **0,31ms** |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 18, 3, 11, 8, 19, 7} | 1 | 12,86 | 0,07ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {4, 9, 16, 8, 14, 17, 7} | 2 | 12,00 | 0,06ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 3, 18, 11, 8, 19, 7} | 3 | 12,86 | 0,09ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {4, 9, 16, 8, 14, 17, 7} | 4 | 12,00 | 0,19ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {4, 9, 16, 8, 14, 17, 7} | 5 | 12,00 | 0,12ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 18, 3, 11, 8, 19, 7} | 6 | 12,86 | 0,06ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {3, 12, 11, 0, 18} | 7 | 12,00 | 0,11ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {4, 9, 16, 8, 14, 17, 7} | 8 | 12,00 | 0,07ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {7, 14, 17, 8, 4, 16} | 9 | 13,17 | 0,08ms | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {6, 10, 5, 17, 19} | 10 | 8,80 | 0,05ms | - | - |
| **max-mean-div-20.txt** | **20** | **13,1674** | - | **total = 10** | - | - | **12,0538** | **0,90ms** |
| max-mean-div-50.txt | 50 | 29,1333 | {25, 33, 36, 49, 24, 4, 27, 29, 45} | 1 | 25,22 | 0,23ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {5, 22, 0, 40, 10, 34, 41, 27, 26, 4, 43, 25, 33, 24, 9, 36, 14, 30, 19} | 2 | 27,26 | 1,00ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {27, 43, 40, 13, 25, 9, 42, 12, 7, 38, 35, 19, 31, 33, 24, 2, 36, 45, 28, 14, 4, 22, 34, 41} | 3 | 25,17 | 0,83ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {31, 38, 13, 28, 3, 25, 43, 12, 45, 9, 24, 33, 36, 27, 7, 14} | 4 | 24,75 | 0,37ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {23, 46, 2, 20, 19, 31, 44, 21, 28, 24} | 5 | 20,20 | 0,28ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {24, 28, 31, 9, 21, 19, 2, 44, 33, 36, 22, 26, 7, 14, 10, 4, 30, 41, 1} | 6 | 24,37 | 0,42ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {18, 25, 42, 1, 13, 47, 27, 40, 41, 2, 19, 31, 10, 11, 12, 7} | 7 | 24,13 | 0,37ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {10, 41, 40, 11, 2, 31, 19, 1, 18, 26, 21, 15, 7, 14, 23, 9} | 8 | 25,44 | 0,33ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {30, 41, 10, 6, 14, 1, 36, 7, 9, 26} | 9 | 21,80 | 0,19ms | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {19, 47, 18, 42, 35, 25, 12, 13, 1, 7, 43, 27, 40, 2, 41, 31, 24} | 10 | 23,71 | 0,56ms | - | - |
| **max-mean-div-50.txt** | **50** | **29,1333** | - | **total = 10** | - | - | **24,20389** | **4,58ms** |

| GREEDY CONSTRUCTIVO | | | | | |
|---|---|---|---|---|---|
| **Problema** | **Nodos** | **Mejor solución conocida** | **Ejecución** | **AVG Md** | **AVG Run Time** |
| **max-mean-div-10.txt** | **10** | **14** | **total = 10** | **12,35716** | **0,44ms** |
| **max-mean-div-15.txt** | **15** | **9,83333** | **total = 10** | **8,975** | **0,31ms** |
| **max-mean-div-20.txt** | **20** | **13,1674** | **total = 10** | **12,0538** | **0,90ms** |
| **max-mean-div-50.txt** | **50** | **29,1333** | **total = 10** | **24,20389** | **4,58ms** |

| Problema | Nodos | Mejor solucion conocida | Solucion | Ejecucion | Md | Run time | AVG Md | AVG Run Time |
|---|---|---|---|---|---|---|---|---|
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 1 | 14,00 | 0,03 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 2 | 14,00 | 0,02 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 3 | 14,00 | 0,04 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 4 | 14,00 | 0,04 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 5 | 14,00 | 0,03 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 6 | 14,00 | 0,04 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 7 | 14,00 | 0,03 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 8 | 14,00 | 0,04 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 9 | 14,00 | 0,02 | - | - |
| max-mean-div-10.txt | 10 | 14 | {4, 5, 6, 7, 8, 9} | 10 | 14,00 | 0,03 | - | - |
| **max-mean-div-10.txt** | **10** | **14** | **-** | **total = 10** | **-** | **-** | **14** | **0,32ms** |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 1 | 9,83 | 0,06 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 2 | 9,83 | 0,08 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 3 | 9,83 | 0,13 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 4 | 9,83 | 0,07 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 5 | 9,83 | 0,07 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 6 | 9,83 | 0,08 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 7 | 9,83 | 0,08 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 8 | 9,83 | 0,09 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 9 | 9,83 | 0,19 | - | - |
| max-mean-div-15.txt | 15 | 9,83333 | {1, 3, 6, 7, 8, 10} | 10 | 9,83 | 0,06 | - | - |
| **max-mean-div-15.txt** | **15** | **9,83333** | **-** | **total = 10** | **-** | **-** | **9,83333** | **0,90ms** |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 14, 17, 18, 19} | 1 | 12,14 | 0,11 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 11, 17, 18, 19} | 2 | 12,86 | 0,12 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 14, 17, 18, 19} | 3 | 12,14 | 0,11 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 14, 17, 18, 19} | 4 | 12,14 | 0,13 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 11, 17, 18, 19} | 5 | 12,86 | 0,11 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 14, 17, 18, 19} | 6 | 12,14 | 0,14 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 14, 17, 18, 19} | 7 | 12,14 | 0,12 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 11, 17, 18, 19} | 8 | 12,86 | 0,17 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 11, 17, 18, 19} | 9 | 12,86 | 0,29 | - | - |
| max-mean-div-20.txt | 20 | 13,1667 | {0, 7, 8, 14, 17, 18, 19} | 10 | 12,14 | 0,11 | - | - |
| **max-mean-div-20.txt** | **20** | **13,1674** | **-** | **total = 10** | **-** | **-** | **12,42858** | **1,42ms** |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 1 | 25,96 | 1,00 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 2 | 25,96 | 1,00 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 3 | 25,96 | 1,00 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 4 | 25,96 | 1,00 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 5 | 25,96 | 0,85 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 6 | 25,96 | 0,93 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 7 | 25,96 | 1,00 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 8 | 25,96 | 0,90 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 9 | 25,96 | 1,00 | - | - |
| max-mean-div-50.txt | 50 | 29,1333 | {2, 4, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24, 25, 27, 28, 29, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45} | 10 | 25,96 | 1,00 | - | - |
| **max-mean-div-50.txt** | **50** | **29,1333** | **-** | **total = 10** | **-** | **-** | **25,9615** | **9,68ms** |

| GREEDY CONSTRUCTIVO | | | | | |
|---|---|---|---|---|---|
| **Problema** | **Nodos** | **Mejor solución conocida** | **Ejecución** | **AVG Md** | **AVG Run Time** |
| **max-mean-div-10.txt** | **10** | **14** | **total = 10** | **14** | **0,32ms** |
| **max-mean-div-15.txt** | **15** | **9,83333** | **total = 10** | **9,83333** | **0,90ms** |
| **max-mean-div-20.txt** | **20** | **13,1674** | **total = 10** | **12,42858** | **1,42ms** |
| **max-mean-div-50.txt** | **50** | **29,1333** | **total = 10** | **25,9615** | **9,68ms** |

Para los siguientes algoritmos sólo se mostrarán las soluciones a el problema con 50 nodos.

| GRASP | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Problema | Mejor solución conocida | Modo | Ejecución | Iteraciones máximas | Iteraciones sin mejora máximas | Alpha | AVG Md | VG run tim |
| max-mean-div-50.txt | 29,1333 | Anxious | total = 10 | 100 | 10 | 0.2 | 28,91542 | 61,00ms |
| max-mean-div-50.txt | 29,1333 | Anxious | total = 10 | 100 | 10 | 0.3 | 29,02553 | 56,60ms |
| max-mean-div-50.txt | 29,1333 | Anxious | total = 10 | 1000 | 100 | 0.2 | 29,1333 | 373,90ms |
| max-mean-div-50.txt | 29,1333 | Anxious | total = 10 | 1000 | 100 | 0.3 | 29,1333 | 380,20ms |

home