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| CASOS ALEATÓRIOS – QUANTIDADE 25 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 0,007 | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,010 | 0,006 |  |
| **Insertion Sort** | 0,002 | 0,002 | 0,002 | 0,002 | 0,003 | 0,002 | 0,002 | 0,002 | 0,002 | 0,001 |  |
| **Merge Sort** | 0,006 | 0,007 | 0,006 | 0,007 | 0,007 | 0,006 | 0,006 | 0,006 | 0,007 | 0,006 |  |

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| CASOS ALEATÓRIOS – QUANTIDADE 100 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 0,058 | 0,055 | 0,054 | 0,054 | 0,237 | 0,122 | 0,055 | 0,055 | 0,053 | 0,117 |  |
| **Insertion Sort** | 0,018 | 0,018 | 0,016 | 0,015 | 0,015 | 0,017 | 0,015 | 0,016 | 0,086 | 0,016 |  |
| **Merge Sort** | 0,087 | 0,021 | 0,021 | 0,020 | 0,022 | 0,021 | 0,020 | 0,021 | 0,023 | 0,022 |  |

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| CASOS ALEATÓRIOS – QUANTIDADE 1000 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 8,519 | 9,722 | 8,838 | 9,471 | 8,297 | 8,883 | 8,305 | 9,166 | 11,457 | 9,114 |  |
| **Insertion Sort** | 1,958 | 2,625 | 2,111 | 2,554 | 2,996 | 2,240 | 1,998 | 2,783 | 1,847 | 1,958 |  |
| **Merge Sort** | 0,871 | 0,428 | 3,014 | 0,297 | 2,448 | 0,731 | 0,381 | 0,234 | 0,334 | 0,231 |  |

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| CASOS ALEATÓRIOS – QUANTIDADE 10000 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 809,518 | 818,790 | 839,789 | 831,437 | 814,834 | 814,460 | 817,670 | 807,763 | 815,952 | 787,976 |  |
| **Insertion Sort** | 148,199 | 146,019 | 149,080 | 143,080 | 159,293 | 146,961 | 147,524 | 145,265 | 145,774 | 158,049 |  |
| **Merge Sort** | 4,119 | 4,002 | 3,477 | 3,076 | 2,900 | 3,160 | 4,131 | 3,909 | 3,849 | 3,425 |  |

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| CASOS ALEATÓRIOS – MELHOR CASO 25 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 0,003 | 0,003 | 0,004 | 0,004 | 0,003 | 0,069 | 0,004 | 0,003 | 0,004 | 0,004 |  |
| **Insertion Sort** | 0,001 | 0,001 | 0,001 | 0,000 | 0,001 | 0,001 | 0,001 | 0,001 | 0,001 | 0,001 |  |
| **Merge Sort** | 0,006 | 0,006 | 0,005 | 0,006 | 0,006 | 0,234 | 0,006 | 0,006 | 0,008 | 0,071 |  |

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| CASOS ALEATÓRIOS – MELHOR CASO 100 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 0,030 | 0,096 | 0,028 | 0,029 | 0,024 | 0,025 | 0,024 | 0,096 | 0,031 | 0,030 |  |
| **Insertion Sort** | 0,001 | 0,001 | 0,002 | 0,001 | 0,001 | 0,002 | 0,002 | 0,002 | 0,002 | 0,002 |  |
| **Merge Sort** | 0,017 | 0,181 | 0,017 | 0,018 | 0,018 | 0,017 | 0,017 | 0,017 | 0,018 | 0,018 |  |

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| CASOS ALEATÓRIOS – MELHOR CASO 1000 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 3,296 | 3,425 | 2,888 | 3,104 | 3,552 | 3,316 | 3,784 | 2,436 | 3,438 | 2,915 |  |
| **Insertion Sort** | 0,008 | 0,009 | 0,073 | 0,008 | 0,009 | 0,009 | 0,009 | 0,008 | 0,008 | 0,009 |  |
| **Merge Sort** | 0,234 | 0,310 | 0,257 | 0,008 | 0,237 | 0,363 | 0,245 | 0,160 | 0,172 | 0,517 |  |

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| CASOS ALEATÓRIOS – MELHOR CASO 10000 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 242,827 | 245,953 | 273,424 | 241,547 | 249,626 | 248,341 | 250,622 | 256,855 | 245,159 | 253,009 |  |
| **Insertion Sort** | 0,089 | 0,157 | 0,960 | 0,075 | 0,076 | 0,075 | 0,075 | 0,166 | 0,075 | 0,075 |  |
| **Merge Sort** | 2,132 | 2,401 | 2,149 | 2,129 | 2,424 | 2,538 | 2,181 | 2,339 | 2,107 | 2,239 |  |

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| CASOS ALEATÓRIOS – PIOR CASO 25 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,006 | 0,007 | 0,006 |  |
| **Insertion Sort** | 0,003 | 0,003 | 0,003 | 0,002 | 0,003 | 0,003 | 0,002 | 0,004 | 0,068 | 0,003 |  |
| **Merge Sort** | 0,005 | 0,006 | 0,006 | 0,006 | 0,006 | 0,005 | 0,005 | 0,006 | 0,008 | 0,006 |  |

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| CASOS ALEATÓRIOS – PIOR CASO 100 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 0,132 | 0,157 | 0,134 | 0,138 | 0,227 | 0,067 | 0,066 | 0,067 | 0,132 | 0,074 |  |
| **Insertion Sort** | 0,030 | 0,029 | 0,029 | 0,030 | 0,029 | 0,030 | 0,031 | 0,030 | 0,030 | 0,096 |  |
| **Merge Sort** | 0,017 | 0,017 | 0,083 | 0,179 | 0,082 | 0,017 | 0,016 | 0,018 | 0,083 | 0,018 |  |

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| CASOS ALEATÓRIOS – PIOR CASO 1000 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 10,673 | 11,587 | 12,035 | 16,433 | 12,035 | 13,084 | 17,249 | 11,048 | 11,365 | 11,046 |  |
| **Insertion Sort** | 7,695 | 8,005 | 3,553 | 4,389 | 3,644 | 3,719 | 3,924 | 3,380 | 4,017 | 3,158 |  |
| **Merge Sort** | 0,736 | 0,444 | 0,159 | 0,246 | 0,162 | 0,164 | 0,245 | 0,242 | 0,163 | 0,165 |  |

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| CASOS ALEATÓRIOS – PIOR CASO 10000 | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Média |
| **Bubble Sort** | 1133,875 | 1082,065 | 1076,824 | 1066,483 | 1095,325 | 1111,312 | 1134,148 | 1105,498 | 1077,777 | 1093,280 |  |
| **Insertion Sort** | 332,807 | 307,232 | 327,656 | 323,154 | 319,030 | 313,047 | 328,469 | 305,974 | 311,309 | 329,468 |  |
| **Merge Sort** | 3,267 | 3,130 | 2,064 | 2,073 | 6,909 | 2,957 | 3,275 | 2,316 | 3,633 | 2,463 |  |