Activity 1. Two algorithms with the same complexity

[ANSWER].

Intel(R) Pentium(R) Gold G5400 CPU @ 3.70GHz 3.70 GHz

8,00 GB (7,87 GB usable)

>50

|  |  |  |  |
| --- | --- | --- | --- |
| N | Loop2(t) | Loop3(t) | Loop2(t)/Loop3(t) |
| 2048 | 113 | 60 | 1 |
| 4096 | 389 | 188 | 1 |
| 8192 | 1488 | 789 | 2 |
| 16384 | 6750 | 3073 | 2 |
| 32768 | 26884 | 12550 | 2 |

Activity 2. Two algorithms with different complexity

[ANSWER].

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| --- | --- | --- | --- |
| N | Loop1(t) | Loop2(t) | Loop1(t)/Loop2(t) |
| 2048 | 160 | 129 | 1 |
| 4096 | 487 | 437 | 1 |
| 8192 | 1894 | 1704 | 1 |
| 16384 | 7670 | 6897 | 1 |
| 32768 | 28575 | 27247 | 1 |

Activity 3. Complexity of other algorithms

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|  |  |  |  |
| --- | --- | --- | --- |
| N | Loop4(t) | Loop5(t) | Loop4(t)/Loop5(t) |
|  |  |  |  |
| 64 | 56 |  |  |
| 128 | 733 |  |  |
| 256 | 12581 |  |  |
| 512 |  |  |  |
| 1024 |  |  |  |
| 2048 |  |  |  |
| 4096 |  |  |  |
| 8192 |  |  |  |
| 16384 |  |  |  |
| 32768 |  |  |  |

Activity 4. Study of Unknown.java

[ANSWER].

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|  |  |  |  |
| --- | --- | --- | --- |
| N | Loop2(t) | Loop3(t) | Loop2(t)/Loop3(t) |
| 8 |  |  |  |
| 16 |  |  |  |
| 32 |  |  |  |
| 64 |  |  |  |
| 128 |  |  |  |
| 256 |  |  |  |
| 512 |  |  |  |
| 1024 |  |  |  |
| 2048 |  |  |  |
| 4096 |  |  |  |
|  |  |  |  |