

Julio Regueira Gonzalez UO309022

Ejercicio 1:

n	TBucle1(ms)	TBucle2(ms)	TBucle3(ms)	TBucle4(ms)
100	0	0	1	0
200	0	0	3	5
400	0	3	16	42
800	0	14	70	324
1600	0	53	266	2587
3200	1	254	1145	21023
6400	1	943	4755	167364
12800	1	4224	20214	FDT
25600	3	19301	83737	FDT
51200	8	78386	343223	FDT

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25600 191596 10      3277056000
PS C:\Users\UO309022\Desktop\alg_JulioRegueiraGonzalezUO309022\p12> java -Xint p12.Bucle1 1
n     tiempo    repeticiones    contador
100    0         1             603
200    0         1            1340
400    0         1            2937
800    0         1            6942
1600   0         1           14938
3200   1         1            32010
6400   1         1            68272
12800  1         1           153612
25600  3         1            324273
51200  8         1            682680
102400 14        1           1501874
204800 36        1            3140282
409600 64        1            6553608
819200 136       1           13653350
PS C:\Users\UO309022\Desktop\alg_JulioRegueiraGonzalezUO309022\p12> |
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819200 136       1           13653350
PS C:\Users\UO309022\Desktop\alg_JulioRegueiraGonzalezUO309022\p12> java -Xint p12.Bucle2 1
n     tiempo    repeticiones    contador
100    0         1            25500
200    0         1            101000
400    3         1            482400
800   14        1           2245600
1600   53        1           8971200
3200   254       1          40985600
6400   943       1          163891200
12800  4224      1          737395200
25600 19301      1          3277056000
51200 78386      1          13107712000
PS C:\Users\UO309022\Desktop\alg_JulioRegueiraGonzalezUO309022\p12> |
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51200 78588 1      15107712000
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> java -Xint p12.Bucle3 1
n    tiempo  repeticiones  contador
100    1      1            71400
200    3      1            323200
400   16      1           1447200
800   70      1           6416000
1600  266      1          28195200
3200 1145      1          122956800
6400 4755      1          532646400
12800 20214     1          2294118400
25600 83737     1          9831168000
51200 343223    1          41944678400
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> |

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51200 343223 1      41944678400
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> java -Xint p12.Bucle4 1
n    tiempo  repeticiones  contador
100    0      1            171700
200    5      1            1353400
400   42      1            10746800
800   324     1            85653600
1600  2587     1            683947200
3200 21023     1            5466454400
6400 167364    1            43711148800
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> |

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n	TBucle5(ms)	TBucle6(ms)	TBucle7(ms)
100	4	61	480
200	24	527	7188
400	114	4529	114076
800	534	39203	FDT
1600	2486	337773	FDT
3200	11485	FDT	FDT
6400	53390	FDT	FDT

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PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> javac -d . *.java
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> java -Xint p12.Bucle5 1
n    tiempo  repeticiones  contador
100    4      1            490000
200    24     1            2560000
400   114     1            12960000
800   534     1            64000000
1600  2486     1            309760000
3200 11485     1            1474560000
6400 53390     1            6922240000
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> |

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6400 53390 1      6922240000
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> java -Xint p12.Bucle6 1
n    tiempo  repeticiones  contador
100    61     1            7000000
200    527    1            64000000
400   4529    1            576000000
800   39203   1            5120000000
1600  337773   1            45056000000
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> |

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1600 337773 1      45056000000
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> java -Xint p12.Bucle7 1
n    tiempo  repeticiones  contador
100    480    1            100000000
200    7188   1            1600000000
400   114076  1            25600000000
PS C:\Users\U0309022\Desktop\alg_JulioRegueiraGonzalezU0309022\p12> |

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n	TBucle1(ms)	TBucle2(ms)	t1/t2
100	0	0	0
200	0	0	0
400	0	3	0
800	0	14	0
1600	0	53	0
3200	1	254	0,003937008
6400	1	943	0,001060445
12800	1	4224	0,000236742
25600	3	19301	0,000155432
51200	8	78386	0,000102059

n	TBucle3(ms)	TBucle2(ms)	t3/t2
100	1	0	1
200	3	0	3
400	16	3	5,333333333
800	70	14	5
1600	266	53	5,018867925
3200	1145	254	4,507874016
6400	4755	943	5,042417815
12800	20214	4224	4,785511364
25600	83737	19301	4,338479872
51200	343223	78386	4,378626285

n	Bucle4 Python (t)	Bucle4 Java NO JIT (t)	tPython/tJava
100	4	0	4
200	41	5	8,2
400	316	42	7,523809524
800	2641	324	8,151234568
1600	22371	2587	8,64746811
3200	203529	21023	9,681253865
6400	FDT	167364	-