$n = 2000$

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1st loop end step: $x+x=2$

X-values	iteration
$x+x=2$	1
$x+x=4$	2
$x+x=8$	3
$x+x=16$	4
32	5
64	6
128	7
256	8
512	9
1024	10
2048	11
4096	12

(1)> From the table to the left, we can determine the efficiency of the outer loop is $O(\log(n))$.

Incorrect

(2)> Inner loop iterates n times, it is linear. $O(n)$.

(3)> Upon Further analysis, statement (1) seems to be incorrect, given:

"until (X > (N·N)"

X+X each iteration of the loop represents the $\log_2$ of not N, but N·N, as is literally stated. Therefore, the time complexity should be $O(\log(N\cdot N)\cdot N)$

> where $O(\log(N\cdot N))$ is the outer loop and $O(N)$ is the inner loop.

Millisecond Scenario

N=2000, each iteration of inner loop takes 3 milliseconds.

> Granted Big $O(\log(N\cdot N)\cdot N)$,
> Fill in values

$\log_2(4000)\cdot 2000$

$12\cdot 2000$

24000

$24000\cdot 3$

72,000 milliseconds

incorrect

Final Answer

$\log_2(2000\cdot 2000)\cdot 2000$

$\log_2(4000{,}000)\cdot 2000$

$22\cdot 2000$

44000

$44000\cdot 3$

132000 milliseconds