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#1

$n=10$, steps = 11
 $n=20$, steps = 21

n = int(input("n: "))

for i in range(n):

print i

$O(N)$

10 steps
20 steps

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#2

n = int(input("n: ")) $n=10$, 100 steps

for i in range(100): $n=20$, 100 steps

print i * n

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#3

n = int(input("n: "))

for i in range(n):

print i

for j in range(n):

print j

$n=10$, 21 steps

$n=20$, 41 steps

$O(N^2)$

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#4

n = int(input("n: ")) $n=10$, 100 steps

for i in range(n): $n=20$, 400 steps

for j in range(n): $n=40$, 1600 steps

print i, j Quad - $O(N \cdot N)$

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#5

n = int(input("n: ")) $n=10$, 55 steps

for i in range(n): $n=20$, 420 steps

for j in range(i, n):

print i, j Quad?

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#6

n = int(input("n: ")) $n=10$, 10 steps

for i in range(n): $n=20$, 20 steps

for j in range(10): $n=40$, 40 steps

print i, j $O(N)$

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#7

n = int(input("n: ")) $n=10$, 5 steps

while n > 1: $n=20$, 6 steps

print n $O(\log N)$

n = n / 2

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#8

L = [1, 2, 5, 7, 13, 21, 24, 25, 26, 33, 34]

n = len(L) $n=11$, 3 steps

mid = int(n/2) no loop

print L[mid]

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#9

n = int(input("n: ")) $n=10$, 21 steps

for i in range(n): $n=20$, 10 steps

k = n $O(N \log N)$

while k > 1:

print i, k

k = k / 2