PROBLEM 3 (10/10 points)

For each of the following expressions, select the order of growth class that best describes it from the following list: $O(1)$, $O(\log(n))$, $O(n)$, $O(n\log(n))$, $O(n^c)$ or $O(c^n)$. Assume c is some constant.

Clicking Check will grade ALL the sub-problems. You have 2 attempts for this problem.

1. $0.0000001n + 1000000$

   O(n)

2. $0.0001n^2 + 20000n - 90000$

   O(n^c)

3. $20n + 900\log(n) + 100000$

   O(n)

4. $(\log(n))^2 + 5n^7$

Help

O(n^c)

5. $n^{200} - 2n^{30}$

O(n^c)

6. $30n^2 + n\log(n)$

O(n^c)

7. $n\log(n) - 3000n$

O(n log(n))

8. 3

O(1)

9. $5^n + n^5 + n + 5$

O(c^n)

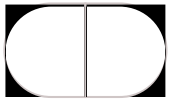
10. $n\log(n) + n^2 + n + \log n + 1 + 2^n$

O(c^n)

Show Answer

You have used 2 of 2 submissions

Show Discussion



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