Previous   Next

Problem 3

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Problem 3

10/10 points (graded)

For each of the following expressions, select the order of growth class that best describes it from the following list: $O\left(1\right), O\left(\log\left(n\right)\right), O\left(n\right), O\left(n\log\left(n\right)\right), O\left(n^{c}\right)$ or $O\left(c^{n}\right)$. 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. $20n + 900\log\left(n\right) + 100000$

   O(n) ✔

4. $\left(\log\left(n\right)\right)^{2} + 5n^{7}$

   O(n^c) ✔

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

   O(n^c) ✔

6. $30n^{2} + n\log\left(n\right)$

   O(n^c) ✔

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

   O(n log(n)) ✔

8. 3

   O(1) ✔

9. $5^{n} + n^{5} + n + 5$

   O(c^n) ✔

10. $n\log\left(n\right) + n^{2} + n + \log n + 1 + 2^{n}$

    O(c^n) ✔

Submit   You have used 1 of 2 attempts

Problem 3

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