

[Course](#) > [Week 6: Algorithmic Complexity](#) > [Problem Set 6](#) > Problem 3

Problem 3

[Bookmark this page](#)

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: $O(1)$, $O(\log(n))$, $O(n)$, $O(n \log(n))$, $O(n^c)$ 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. $0.0000001n + 1000000$

✓

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

✓

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

✓

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

✓

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

✓

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

✓

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

✓



8. 3

 ✓9. $5^n + n^5 + n + 5$ ✓10. $n \log(n) + n^2 + n + \log n + 1 + 2^n$ ✓

You have used 2 of 2 attempts

Problem 3

Topic: Problem Set 6 / Problem 3[Show Discussion](#)

© All Rights Reserved



🌐 English ▾

© 2012–2017 edX Inc. All rights reserved except where noted. EdX, Open edX and the edX and Open edX logos are registered trademarks or trademarks of edX Inc. | 粤ICP备17044299号-2

POWERED BY
OPENedX®