

CMPS 6100 Lab 03

Answers

Name: _____

Place all written answers from lab-03.md here.

Asymptotic Analysis Problems

1. $32n \in O(n)$

2. $\ln n \in \Omega(n)$

3. $\lg n \in \Theta(\ln n)$

4. $\log_c n \in \Theta(\ln n), \quad c > 1$

5. $n^2 \in O(2^n)$

6. $n^3 \in \Omega(n^2)$

7. $4^{\lg n} \in \Theta(n)$

8. $\ln^2 n \in O(n)$

9. $\ln^2 n \in O(\sqrt{n})$

10. $\ln^c n \in O(n^k), \quad \forall c, k > 0$

11. $\ln \ln n \in O(\ln n)$

12. $2^n \in \Omega(2^{n+1})$

The Game

Detail any and additional features that you added to the game here.

13. Add the text file for your custom map and a drawn image of it to your repository. Note the names of these files here.

14. Document any additional bonus features you added to the game here.