**Exercise: Asymptotic Notation Proof**

1. 3n2 + 10nlog2n = O(nlog2n)
2. 3n2 + 10nlog2n = Ω(n2)
3. 3n2 + 10nlog2n = Θ(n2)
4. nlog2n + n/2 = O(n)
5. 10√n + log2n = O(n)
6. √n + log2n = O(log2n)
7. √n + log2n = Θ(log2n)
8. √n + log2n = Θ(n)
9. 2n + log2n = Θ(√n)
10. 1/2n2 - 3n = Θ(n2)
11. 6n3 = Θ(n2)
12. √n + log2n = Ω(1)
13. √n + log2n = Ω(log2n)
14. √n + log2n = Ω(n)