

Seatwork (Asymptotic Analysis)

Which complexity classes do these functions belong to? Write the complexity class in terms of Θ .

1. $3n^2 + 40n - 5$
2. $8n + 6n + \log_3 n$
3. $\log_5 n + 6\log_3 n$
4. $\log_5 n + \sqrt{n}$
5. $8\log_3(\log_3 n) + \log_5 n$
6. $2n + 2^n + 50n^3$
7. $2^7 + n^2 + 50n^3$
8. $n\log_2 n + 5n$
9. $6n + 3n^2 + 4$
10. $4 + 5\sqrt{n} + \sqrt[3]{n^2}$
11. $2(\log_5 n)^2 + 8n^{\frac{2}{3}}$

