Contents

1 Big Omega

f(n) e BigOmega(g(n)) iff there is a c > o, k f(n) >= Cg(n), n >= k

1.1 Example:

Prove $ $3n^2 + 2n + 8$ e $\omega\{n^2\}$ $ $ $3n^2 + 2n + 8 >= Cn^2$ where n >= k$ $ -$2n^2$ -$2n^2$ $ $ $n^2 + 2n + 8 >= 0$ $ TRUE!

1.2 Another Example:

Prove $ $n^2 - n_{\overline{2e\omega}}\{n^2\}$ $ $ $n^2 - n_{\overline{2>=cn^2}}$ $ c = 1/4 n^2 / 2 - n/2 >= n^2 / 4 n^2 / 4 - n/2 >= 0 n^2 / 4 >= n/2 n >= 2

2 Big O

f(n) e BigO(g(n)) iff there is a c > o, k f(n) <= Cg(n), n >= k