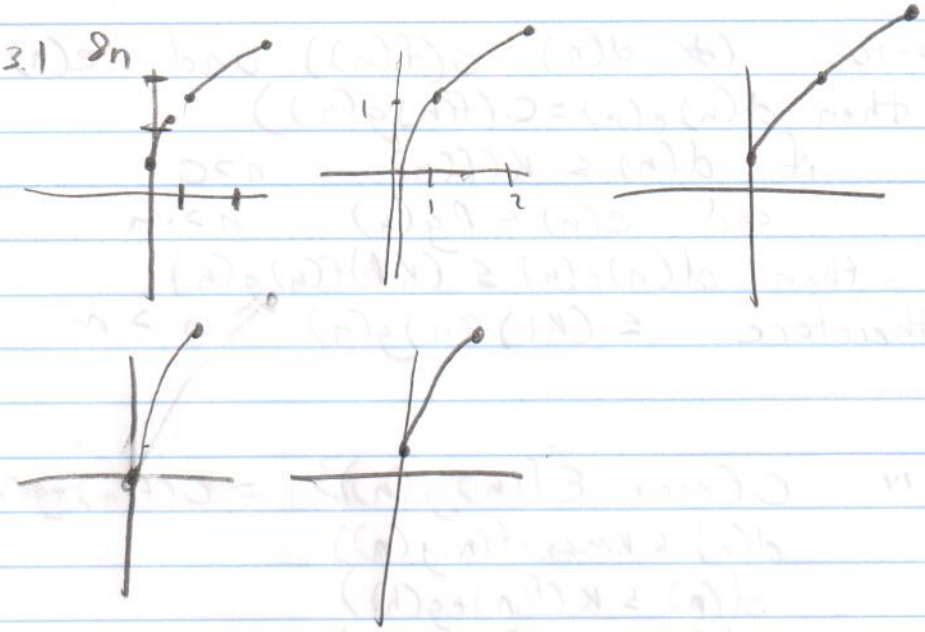
James Monte

HW 2

R-3.1 $8n$



3-2 A: $8n \log n$ B: $2n^2$

then $A \leq B$ when $n \geq n_0$

means $8 \log n \leq 2n^2$ $n_0 = 4$

therefore $4 \log n \leq n$

3-8 2^{10} = constant, 2^{4n} is linear, $2^{\log n}$ is linear, $3n + 10 \log(n)$ is linear, $4 \log n + 2n$ is linear, $n \log n$ is linear, $n^2 + 10$ is quad, n^3 is poly

no growth → big growth

2^{10} $2^{\log n}$ $3n + 10 \log(n)$ $(4n)$ $(n \log n)$ $(4n \log n + 2)$ $(n^2 + 10)$

n^3 2^n