

1. Lead Term Dominance
2. Consider what happens to $\mu(\mu(x^2))$ as you approach 0 from the right side and left side
3. The phrase "as time goes on" implies a certain limit. What is that limit?
4. $(x - y)(x^2 + xy + y^2) = x^3 - y^3$
5. Work from the inside outwards. Try the same strategy of plugging in values around -2.5 and see if that changes your answers.
6. Series expansion
7. Recall that $\binom{n}{k} = \frac{n!}{(n-k)!(k)!}$.
8. Consider what happens to y when x is in the interval $[0, 1]$ vs when it is in the interval $(1, \infty)$
9. Its hard to work with a_n when it is a sequence. It would be much better if we could represent it as some function $a(n)$. This might require going through some of your trig formulas from precalc.
10. For the numerator, consider the sequence of partial sums. Also, it is a little computational at the end, so don't be too afraid if you're bashing it out at the end.