

Problem of the Week-6: A Recursive Sequence

Let $a_1 = 0, a_2 = 1$ and for $n \geq 3$, $a_n = (n - 1)(a_{n-1} + a_{n-2})$.
Find

a) A formula for a_n and

b) $\lim_{n \rightarrow \infty} \frac{a_n}{n!}$

As always, show your work and prove your answer.

Posting Date 3/30/13. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 4/12/13.