Let $h \in C^2(\mathbb{R}^3)$ be harmonic ($\Delta h = 0$). Use Green's identity for $\iiint \Delta h \, d\text{vol}$ to show that $\frac{1}{4\pi R^2} \iint h(x) \, d\text{area} = \frac{1}{4\pi} \iint_{|x|=1} h(Rx) \, d\text{area}$ is independent of the value of R. Then deduce the mean value theorem

$$h(0) = \frac{1}{4\pi R^2} \iint_{|x|=R} h(x) \, d\text{area}$$

Now what can you say if $\lim_{x\to\infty} h(x) = 0$?

Since this is an analysis problem, please be sure to be rigorous, and include as much detail as possible so that I can understand. Please also state if you are making use of some fact or theorem. Thanks!