When is the limit equal to the supremum norm of *f*?

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Abstract.

If	<i>f</i>	is	а	nonnegative	continuous	function	on	[0,1]	we	investigate	the	problem	when	is	
$\lim_{n\to\infty}$	$\lim_{n \to \infty} \sqrt[n]{\int_0^1 f(x) f(x^2) \cdots f(x^n) dx}$ equal to the supremum norm of f . This problem is motivated by a problem in classical analysis which														
states	states that if <i>f</i> is a continuous function on [<i>a</i> , <i>b</i>] then the following equality holds $\lim_{n \to \infty} \sqrt[n]{\int_a^b f(x) ^n dx} = f _{\infty}$.														

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