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Our main goal is to discuss the following question: Does the solution to the Cauchy problem for the gKdV equation preserve Gevrey initial data regularity? We start by showing that this is not true in the time variable by constructing a Gevrey function of order  $\sigma > 1$ ,  $\varphi \in G^\sigma(\mathbb{T})$ , such that the solution to the correspondent Cauchy problem for the gKdV is not  $G^\sigma$  in the time variable. However, it always belongs to  $G^{3\sigma}$  near the origin. Finally, we will give some ideas for how to use multilinear estimates in order to prove that the solution to the Cauchy problem for gKdV preserves Gevrey regularity in the space variable. (Received September 08, 2010)