In any problem in many-body dynamics it is of fundamental importance to obtain time dependent correlation functions. In most cases these functions can only be obtained numerically. The algorithms used for temporal integration of the equations of motion give, in general, satisfactory results. However, a careful analysis of the methods of integration shows that many results are highly dependent on the intrinsic truncation errors. Even more sophisticated integration methods can lead to results that appear inconsistent. A closer analysis shows that a minor change in the integration method can hide traps difficult to detect. In this paper we discuss a simple case: We numerically obtain the correlation functions of the heisenberg model in 1, 2 and 3 dimensions. We show that the results obtained for even short times lead to inconsistencies when compared with exact calculations. That result is intriguing because it puts in evidence several studies presented in the literature for long time correlation functions.