Fictionalism and the interpretation of mathematical discourse.

One of the popular ways to provide an understanding for mathematical discourse has been via fictionalism, the notion that mathematical objects have the same kind of existence that characters do in fiction. This approach suffers from a number of problems in detail, but there is a fundamental issue about the way in which mathematics is carried on that differs from the kind of narratives with which it is compared. Story-telling, if successful, generates a suspension of disbelief. Mathematics needs to achieve a higher level of both involvement and assent. This paper tries to distinguish the standards required in mathematics, and draws on some Platonic distinctions between different sorts of craft. (Received September 14, 2004)