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Progress*. Preliminary report.

Quinn concludes [AMS NOTICES 59(1): 31 (2012)] that our mathematics is not science, the criterion for validity (truthfulness) differing: Science requires comparison (of the ‘model’) with external events; mathematics is internal. Whether mathematics progresses over time, whereas philosophy so falters, can be considerably resolved by recalling that natural philosophy (properly conducted: cf. Cotes’s Preface, Newton’s PHILOSOPHIAE NATURALIS PRINCIPIA MATHEMATICA, ed2, ca1713) is the foundation of Modern Science [= that human activity devoted to the search for the very explanation for (i.e., for the truth about) any particular naturally occurring phenomenon]: Any natural philosopher must begin by observing Nature before modeling it [cf. TEOREMA 28(2): 35 (2009)]. Mathematician/science-historian Sarton concluded that the only true human progress results from science because of its dedication to finding truth(s). Our mathematics is not science, deals not with Nature, but rather with abstractions (points, lines): thus, mathematics is not itself sufficient for Science [LT More (Dean, Univ Cincinnati) LIMITATIONS OF SCIENCE, 1915: 151]. Also, mathematics is not necessary for Science (Darwin). Yet, we conclude that both mathematics and (natural) philosophy do provide human progress. (Received September 24, 2012)