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Editorial

I suppose that many readers were, like me, irritated by the report in the *Daily Telegraph*, which compared the questions set to 11year-old pupils in 1893 with those set to such pupils today. In 1893 children were set daunting questions on the rule of three: "If a haberdasher sells 3 yds 2 ft and 11 inches of linen for 8s 6d 1 farthing, what would the price be of 5 yds 1ft and 2 inches". In 1993 they were asked: "Ahmed has 3 red pencils and 2 blue pencils in his pencil case. If he picks one at random, what is the probability that it is a red one?". To compare the target population at whom these two questions are aimed, and to assess the success of the participants, would be a fit subject for a Ph.D thesis, but in a half-page newspaper article could only lead to confusion. However in the half-page that remains to me I wish to play the *Daily Telegraph* at their own game.

I am suspicious of all talk of Golden Ages in education when it is based on what was *examined* or even what was *taught*. The admittedly far-from-random sample of people in their sixties that one meets does not indicate that knowledge of proportion was any greater in school children of the 1940s than it is now, and study of Renaissance art indicates that understanding of the rule of three was much livelier in 1493 than in 1893. But let us assume (somewhat traitorously to colleagues in the primary sector!) that standards have indeed drastically slipped since 1893, to the extent that everyone at age 11 in 1893 could do the linen question, while in 1993 very few 11 year-olds could attempt the pencils question. [Incidently, my wife, with a calculator, has just done the linen question, but doesn't understand the pencils question!] So skilful is the teaching of mathematics at secondary level in this country that despite knowing nothing at age 11, by the age of 18 pupils are able to quote, use, and verify (to the extent that its discoverer verified), the Cayley-Hamilton theorem, that a matrix satisfies its characteristic polynomial, a result so advanced that it was only discovered in 1857, and whose very *statement* would be incomprehensible to the future drapers of 1893.