Robert D. Poodiack* (rpoodiac@norwich.edu), Department of Mathematics, Norwich University, 158 Harmon Drive, Northfield, VT 05663. The Power of Five.

There’s something about the “fifth level” of difficulty in mathematics, an invisible barrier which seems to separate the solvable from the unsolvable in several problems. We will look at three such problems and try and figure out what separates the fifth level, the fifth power, from the four that come before it and raises difficulty to impossible levels. (Received September 16, 2008)