

**S17 Numerical Analysis
2007 Report**

4 exam entries: small statistical sample.

Question 1. 1 student, who got a perfect score. Recollection and derivation of low-order differential equation methods.

Question 2. All 4 students, mean score 21.5. Finite differences and application to the heat equation. This question was evidently popular; best guess is that it started with bookwork derivations worth 10 points.

Question 3. 1 student, who achieved 14 points. Convergence of the Newton method and comparison with a fixed-point iteration.

Question 4. 2 students, with scores of 13 and 23. Numerical integration using Simpson's Rule, Runge-Kutta method, and Monte Carlo method.