1. $V \propto l^3$ and $S \propto l^2$
Therefore $l \propto V^{1/3}$ and $l \propto S^{1/2}$
Thus $S^{1/2} \propto V^{1/3}$ or $S \propto V^{2/3}$.

2. See solutions to problem 2.10 from homework number 2.

3. Solution given in class on Friday 9/27/02.

4. See notes section 2.4.4.1.

Statistical Information on Exam:
Problem 1 Average: 22.1
Problem 2 Average: 19.5
Problem 3 Average: 20.3
Problem 4 Average: 19.8
High score: 98 Median: 86