

Midterm #1, Fall 1999

- 1. (40 points).** The size of the system developed in the Uni Word case study was 60 KDSI. Rank the SoftWizards project situation in the Uni Word case study with respect to each of the eight features in the "Distinguishing Features of Software Development Modes" table, and determine the best development mode to use in estimating the cost and schedule for the Uni Word project.
- 2. (30 points).** Estimate the required effort, schedule, and cost to develop a 60 KDSI system in each of the Organic, Semidetached, and Embedded modes. Use \$5K/MM to determine the project cost from the project effort. Evaluate Soft Wizards' decision to contract to build Uni Word in 9 months for \$300K. Explain why the estimated schedule for the 60 KDSI Embedded mode project is not considerably longer than for the same-size products using the other modes.
- 3. (40 points).** For a 60 KDSI Embedded mode project, determine the overall effort, schedule, and staff level (FSP) to perform the Programming phase. Determine the staff levels for each of the eight project activities during the Programming phase. Approximate interpolation for 60 KDSI values in the tables is OK.
- 4. (40 points).** In the Subscription Processing Product Line business case, suppose you determined that it would be feasible to sell subscription processing services at 10 cents (\$0.1) per transaction. Using the same estimated costs and number of customers by year, and assuming an average of 800K transactions per customer per year, work out the total income and cumulative income by year, and the resulting return on investment (ROI). Is the business case satisfactory for this approach?