Name: Thursday section time:
Student ID:

Math 20F - Linear Algebra - Spring 2003

Self-assessment Quiz #5.5 — May 22

This quiz is not to be handed in. Answers on the back side.
You must show your work in order to get credit for a problem. **Label your answers clearly.**

1. Let $\mathbf{u}_1 = (1, 1, 1, 0)^T$ and $\mathbf{u}_2 = (0, 1, 1, 1)^T$. Let $U = Span(\mathbf{u}_1, \mathbf{u}_2)$.
Find a basis for $U^\perp$.

2 Find the linear function that best approximates data

x	-2	0	1	2
y	2	0	1	2

in the least squares sense.