

## Attendance Quiz for Lecture 0

**NAME:** (print!) \_\_\_\_\_ **Section:** \_\_\_\_\_

**E-MAIL ADDRESS:** (print!) \_\_\_\_\_

1. Approximate, with mesh-size  $h = 1$ , the solution of the boundary-value problem

$$u_{xx} + u_{yy} = 0 \quad , \quad 0 < x < 2 \quad , \quad 0 < y < 2 \quad ;$$

subject to the boundary conditions

$$u(0, y) = 2 \quad , \quad 0 < y < 2 \quad ; \quad u(2, y) = 3 \quad , \quad 0 < y < 2 \quad ;$$

$$u(x, 0) = 1 \quad , \quad 0 < x < 2 \quad ; \quad u(x, 2) = x \quad , \quad 0 < x < 2 \quad .$$