

AMSC/CMSC 460 Quiz 2 , Fall 2001

Show all work. You may leave arithmetic expressions in any form that a calculator could evaluate. By putting your name on this paper, you agree to abide by the university's code of academic integrity in completing the quiz. Use no books, calculators, cellphones, communication with others, scratchpaper, etc.

Name _____

Student number _____

1. (7) Write down the Lagrange form of the interpolating polynomial for the data $(x, f(x)) = (1,-5), (2,6), (3,-2)$.

2. (8) Given that $(x, f(x)) = (1, -5), (2, 6), (3, -2)$, compute $f[1, 2, 3]$.

3. (5) Use the Newton basis to write the polynomial that interpolates the data $(x, f(x)) = (1, -5), (2, 6)$.