Quiz #9

Student Name: Student ID:

Employ inverse interpolation to determine the value of x that corresponds to f(x) = 0.85
for the following tabulated data:

x	0	1	2	3	4	5
f(x)	0	0.5	0.8	0.9	0.941176	0.961538

Note that the values in the table were generated with the function $f(x)=x^2/(1 + x^2)$.
(a) Determine the correct value analytically.
(b) Use quadratic interpolation of x versus y.

Theoretical Models for Computing