

MATH 464, HW 9

1) Compute the Inverse laplace Transforms of the following functions:

$$f_1(s) = \frac{1}{s^2 + 2s + 10}$$

$$f_2(s) = \frac{s^2}{(s^4 - 1)}$$

2) Solve the initial value problems:

$$y'' + a^2y = 0; \quad y(0) = 1, \quad y'(0) = 0, \quad a > 0;$$

$$y'' - 2y' = -4, \quad y(0) = 0, \quad y'(0) = 4.$$