

MATH/AMSC 673 (Fall 2004)
PARTIAL DIFFERENTIAL EQUATIONS
HOMEWORK 4 (Due November 2)

Problem 1.

Apply the similarity method to the linear transport equation

$$u_t + au_x = 0$$

to obtain the special solutions of the form $u(x, t) = c(at - x)^{-\alpha}$.

Problem 2.

Solve the problem [Evans 2.5 #10].

Problem 3.

Solve the problem [Evans 2.5 #11].