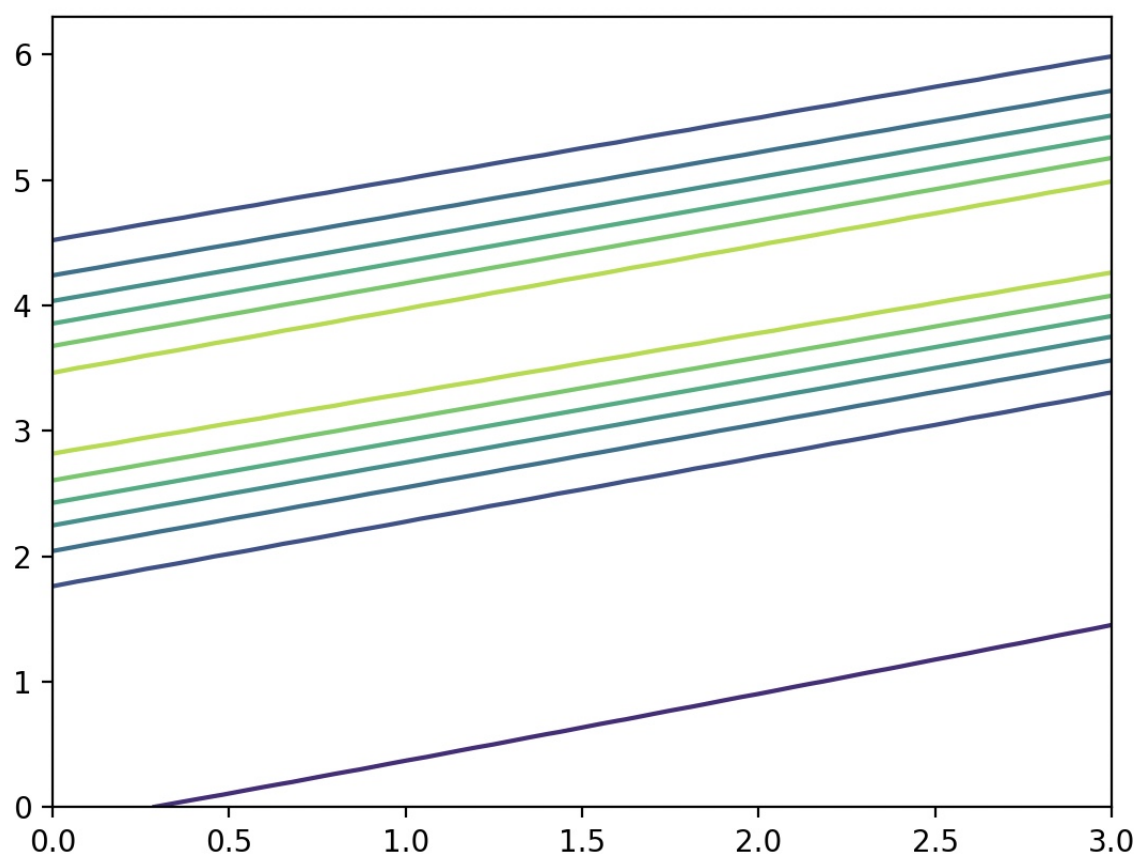
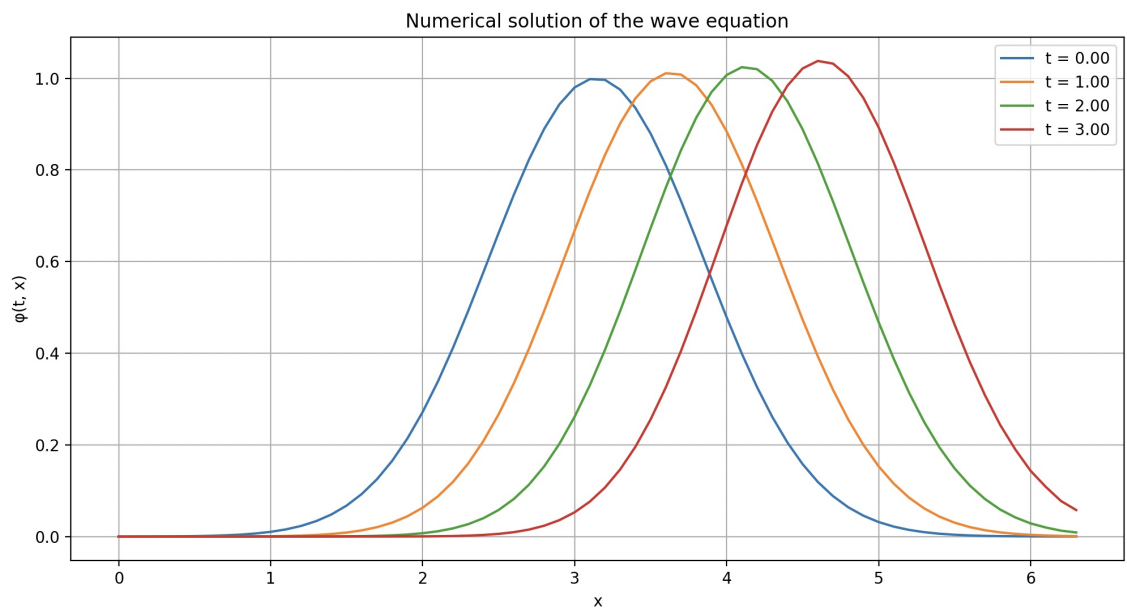
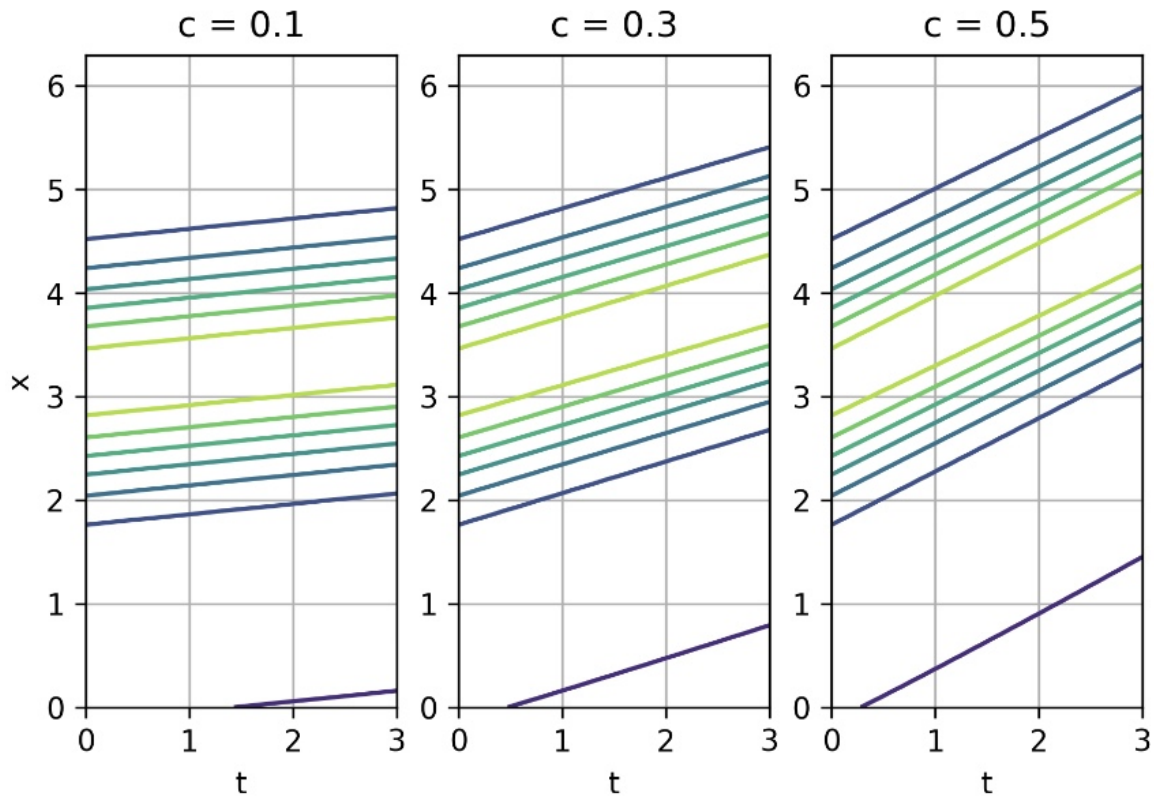


Problem 1



Problem 2



The relationship between the numerical value of c and the contour plots of $\phi(t, x)$ shown is that as c increases, the slope of the contour plot increases. c represents the slope of the lines.