

## Homework 5

1. Solve

$$y'' - y' = -3$$

$$y'' + 2y' + y = \sin x + 3 \cos 2x$$

$$y'' + 4y = \sin 2x.$$

2. Solve

$$y'' + y = \sec x$$

$$y'' + 3y' + 2y = \frac{1}{1 + e^x}$$

$$y'' + 3y' + 2y = \sin e^x.$$