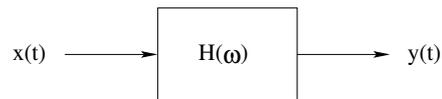<div align="center">

EE 341 - Homework 7

Due October 12, 2005

</div>

For problems which require MATLAB, please include a MATLAB m-file which shows how you made your plots.

1. Problem 5.13

2. Problem 5.19

3. Problem 5.20

4. Problem 5.22

5. Problem 5.23

6. Problem 5.25

7. Problem 5.27

8. Consider the following system:

The frequency response of the filter is

$$H(\omega) = 1 - e^{-j\omega/2}$$

The input $x(t)$ is:

$$x(t) = 5 + 2\cos(\pi t) + 3\sin(2\pi t)$$

Find the output $y(t)$.