Homework #8

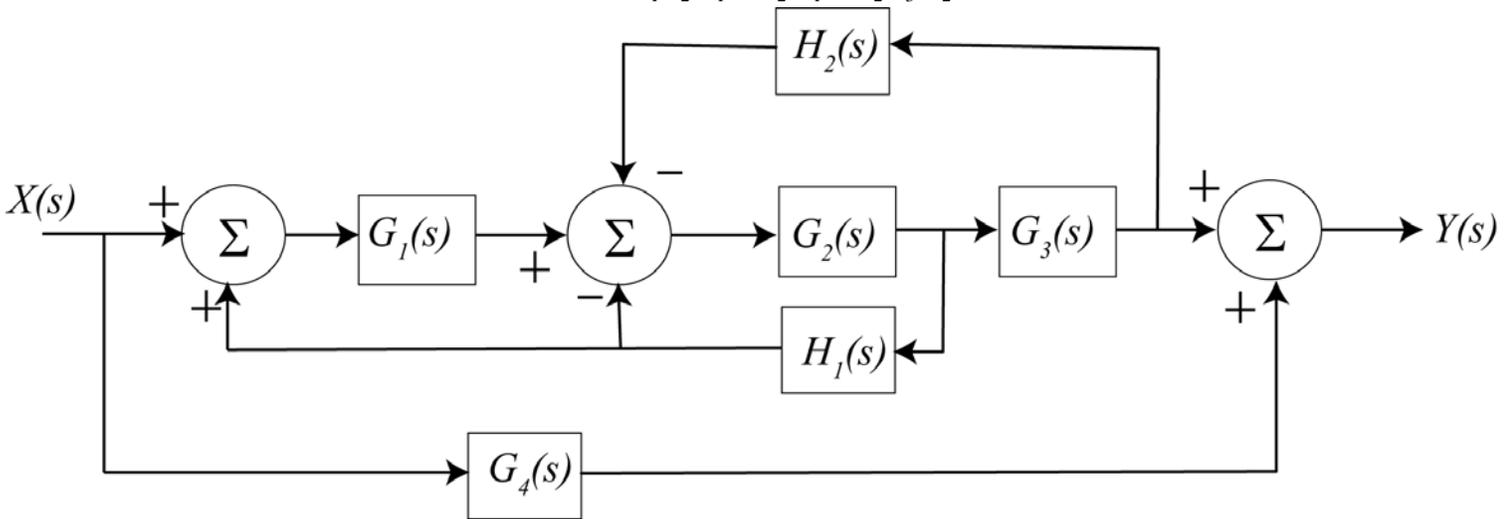**Due : <u>Thursday</u> February 2 at the beginning of class**

Read section 6.7 for problems 1-3. You are responsible for this material, but we will not cover it in class.

1) Chapter 6, Problem 6.7

2) Chapter 6, Problem 6.8

3) For the block diagram shown below, determine a corresponding signal flow diagram and show that the closed loop transfer function is

$$H_{system} = \frac{G_1G_2G_3 + G_4(1-G_1G_2H_1+G_2H_1+G_2G_3H_2)}{1-G_1G_2H_1+G_2H_1+G_2G_3H_2}$$

4) Chapter 7, Problem 7.1

5) Chapter 7, Problem 7.2

6) Chapter 7, Problem 7.3

7) Chapter 7, Problem 7.4

8) Chapter 7, Problem 7.5

9) Chapter 7, Problem 7.6

10) Chapter 7, Problem 7.7

11) Chapter 7, Problem 7.8