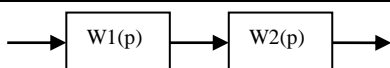
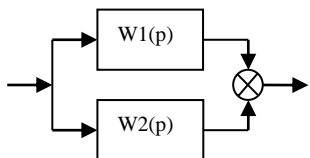
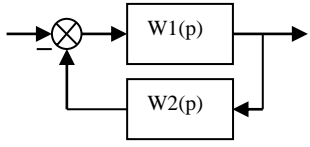
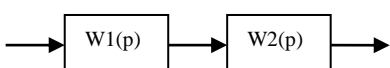
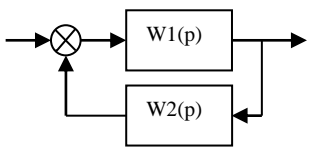
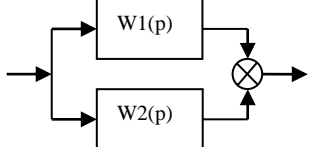
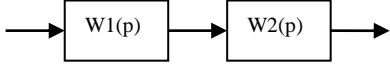


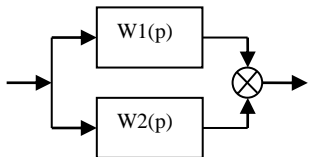
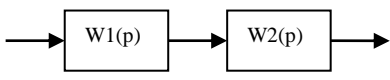
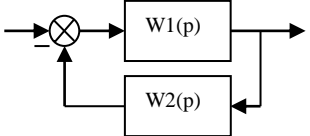
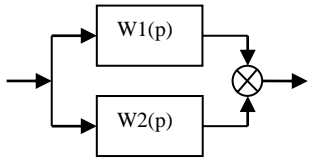
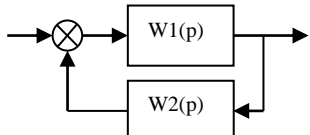
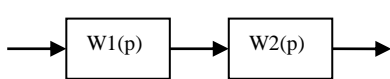
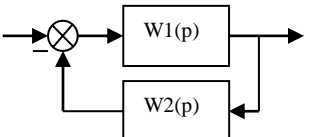
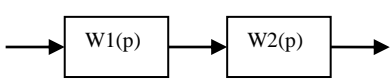
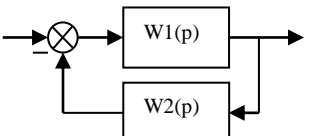
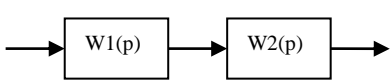
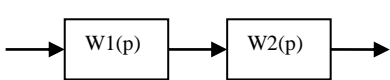
## Задания на контрольные работы.

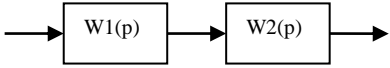
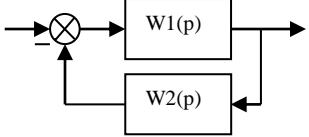
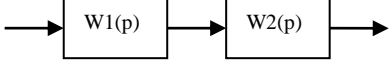
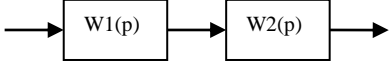
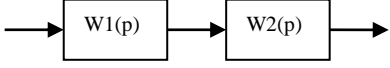
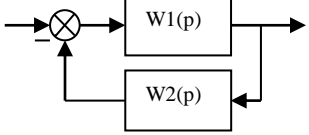
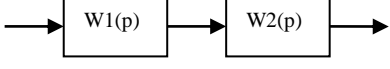
Постановка задачи:

- 1) Для заданной структурной схемы вывести эквивалентную передаточную функцию  $W_3(p)$ .
- 2) Построить ЛАФЧХ системы  $(L_3(\omega), \varphi_3(\omega))$  двумя методами: аналитическим и аппроксимированным.
- 3) Определить устойчивость системы (корневым методом, используя критерии устойчивости Михайлова или Найквиста).
- 4) Построить переходную характеристику системы  $h(t)$ .
- 5) По переходной характеристике оценить показатели качества системы.

**Варианты заданий выбираются студентами согласно порядковому номеру в списке группы.**

№ Варианта	Структурная схема	Передаточные функции	Параметры схемы
1		$W1(p)=1/T1p+1$ $W2(p)= T2p$	$T1=0.2(c)$ $T2=0.5(c)$
2		$W1(p)=K/T1p+1$ $W2(p)= T2p$	$T1=0.1(c)$ $T2=0.2(c)$ $K=2$
3		$W1(p)=1/T1p$ $W2(p)= K$	$T1=0.2(c)$ $K=0.5$
4		$W1(p)=T1p+1$ $W2(p)= 1/T2p$	$T1=0.9(c)$ $T2=0.1(c)$
5		$W1(p)=1/T1p+1$ $W2(p)= T2p$	$T1=0.6(c)$ $T2=0.5(c)$
6		$W1(p)=1/T1p$ $W2(p)= T2p+1$	$T1=1(c)$ $T2=0.5(c)$
7		$W1(p)=K$ $W2(p)=1/T2p+1$	$K=5$ $T2=0.5(c)$

8		$W1(p)=1/T1p+1$ $W2(p)= T2p$	$T1=0.3(c) T2=0.5(c)$
9		$W1(p)=1/T1p+1$ $W2(p)=1/T2p$	$T1=0.4(c) T2=0.4(c)$
10		$W1(p)=1/T1p+1$ $W2(p)=1/T2p+1$	$T1=0.3(c) T2=0.6(c)$
11		$W1(p)=T1p+1$ $W2(p)=T2p+1$	$T1=0.1(c) T2=0.2(c)$
12		$W1(p)=1/T1p+1$ $W2(p)= T2p$	$T1=0.2(c) T2=0.2(c)$
13		$W1(p)=1/T1p+1$ $W2(p)= T2p+1$	$T1=0.2(c) T2=0.1(c)$
14		$W1(p)=1/T1p+1$ $W2(p)= K$	$T1=0.2(c) K=4$
15		$W1(p)=1/T1p+1$ $W2(p)=1/T2p$	$T1=0.8(c) T2=0.1(c)$
16		$W1(p)=1/T1p+1$ $W2(p)= T2p$	$T1=0.2(c) T2=0.1(c)$
17		$W1(p)=T1p+1$ $W2(p)=1/T2p$	$T1=0.4(c) T2=0.2(c)$
18		$W1(p)=T1p+1$ $W2(p)=T2p$	$T1=0.3(c) T2=0.1(c)$

19		$W1(p)=1/T1p+1$ $W2(p)=1/T2p+1$	$T1=0.8(c) T2=0.1(c)$
20		$W1(p)=1/T1p+1$ $W2(p)=1/T2p+1$	$T1=0.6(c) T2=0.3(c)$
21		$W1(p)=T1p+1$ $W2(p)=K/T2p+1$	$T1=0.1(c) T2=0.5(c)$ $K=4$
22		$W1(p)=1/T1p+1$ $W2(p)=K/T2p+1$	$T1=0.1(c) T2=0.5(c)$ $K=2$
23		$W1(p)=T1p$ $W2(p)=K/T2p+1$	$T1=0.2(c) T2=0.5(c)$ $K=2$
24		$W1(p)=1/T1p$ $W2(p)=K$	$T1=0.1(c) K=5$
25		$W1(p)=T1p+1$ $W2(p)=K/T2p+1$	$T1=0.7(c) T2=0.2(c)$ $K=3$