

## COURSE WORK No. 5

For the given construction determine the deflection or the slope at point K according to the number of the problem (see table 1). Use Castiliano's theorem. The cross-section is UPE 330 and the material is steel with modulus of elasticity  $E=2 \cdot 10^{11}$  Pa.

Variant	L [m]	w [kN/m]	F [kN]	M [kNm]
1	1,8	10	16	15
2	2	12	18	20
3	2,2	14	20	25
4	2,4	16	22	30
5	1,6	20	24	17
6	2,6	18	26	22

Table 1

Problem No.	slope	deflection	Problem No.	slope	deflection	Problem No.	slope	deflection
1	v		11	v		21		v
2		v	12	v		22		v
3		v	13		v	23	v	
4	v		14		v	24		v
5	v		15	v		25	v	
6	v		16	v		26	v	
7		v	17		v	27		v
8	v		18		v	28	v	
9	v		19	v		29		v
10	v		20		v	30		v



