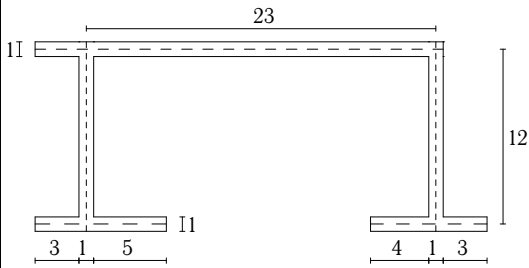


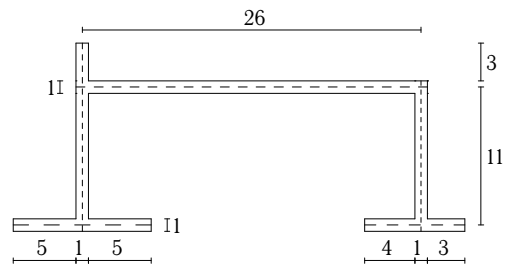
## Кручение стержней открытого профиля

К тонкостенному стержню открытого профиля приложен крутящий момент  $M = 1 \text{ Нм}$ . Найти относительный угол закручивания  $\theta$ . Модуль упругости материала  $E = 0.7 \cdot 10^5 \text{ МПа}$ , коэффициент Пуассона  $\nu = 0.3$ . Размеры даны в мм.

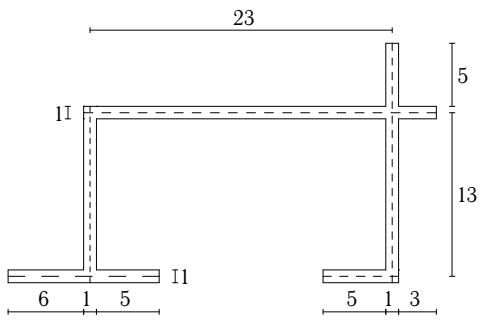
**Задача 19.1.**



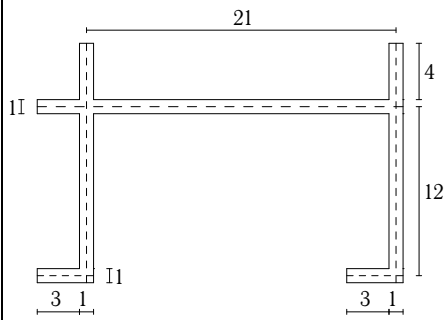
**Задача 19.2.**



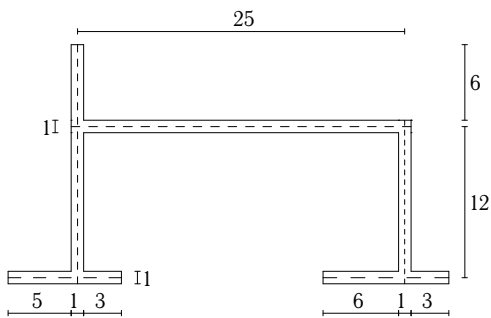
**Задача 19.3.**



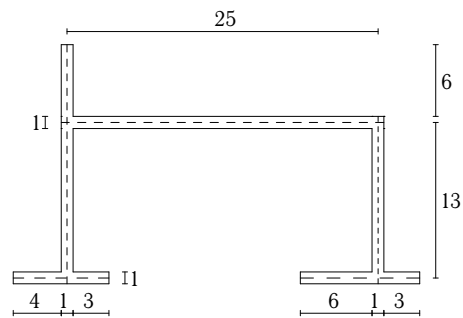
**Задача 19.4.**



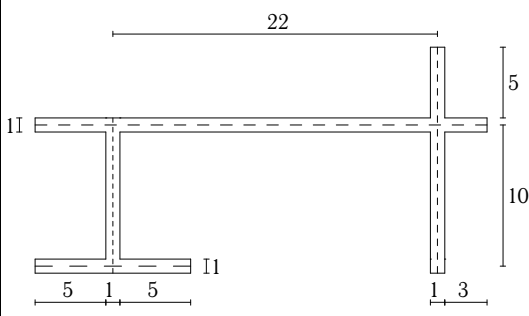
**Задача 19.5.**



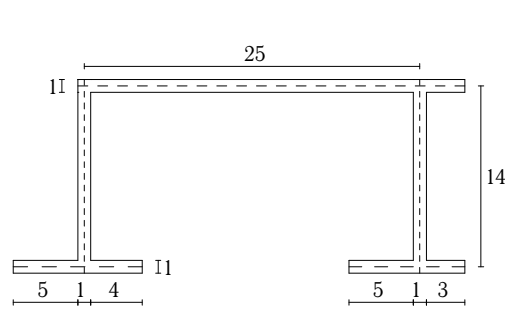
**Задача 19.6.**



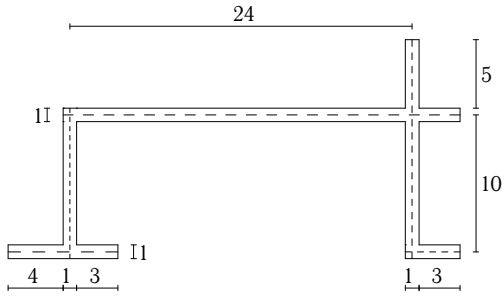
**Задача 19.7.**



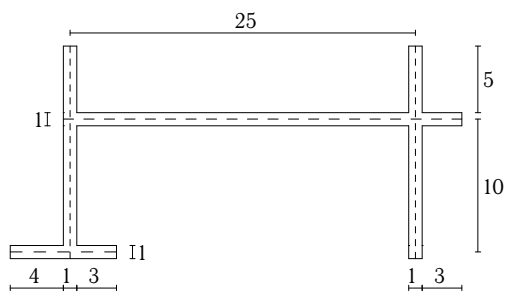
**Задача 19.8.**



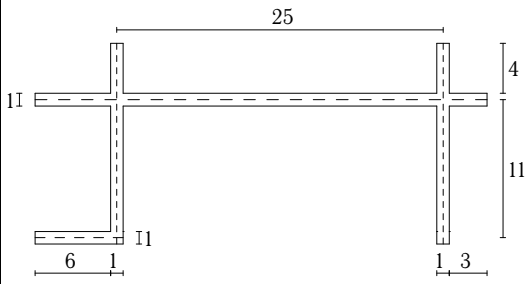
**Задача 19.9.**



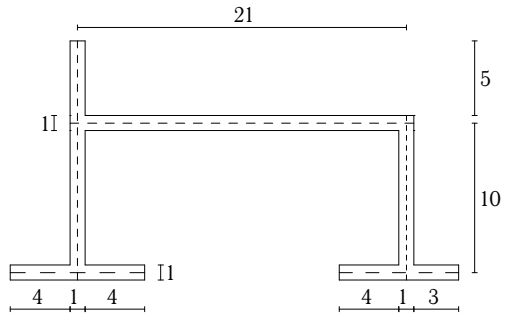
**Задача 19.10.**



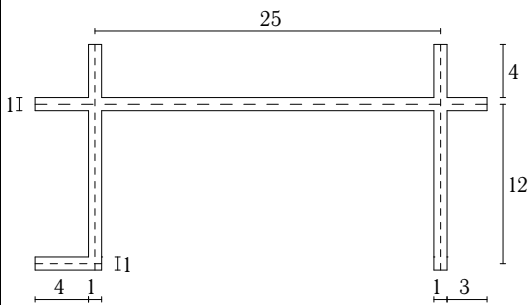
**Задача 19.11.**



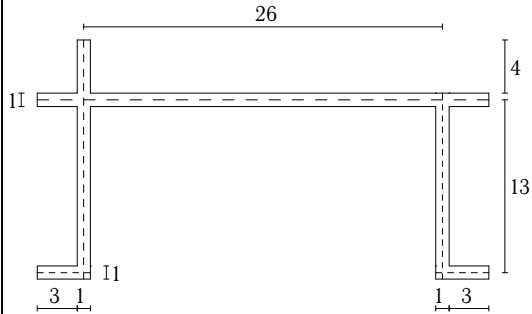
**Задача 19.12.**



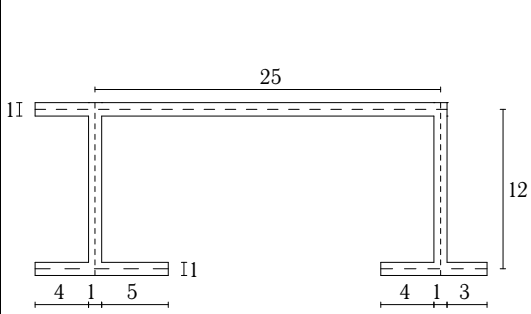
**Задача 19.13.**



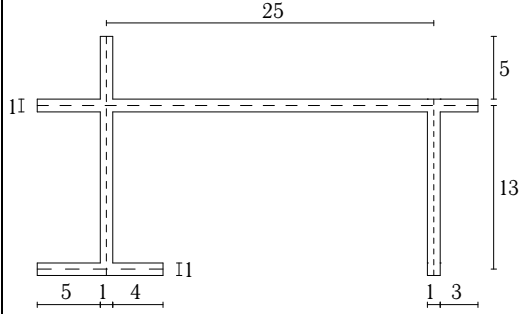
**Задача 19.14.**



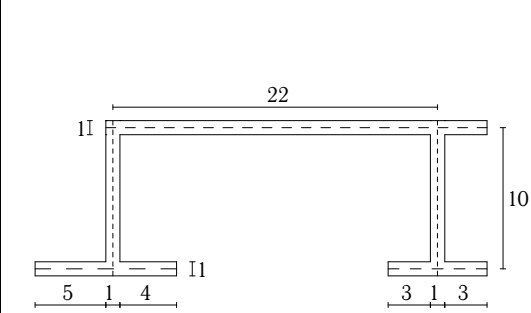
**Задача 19.15.**



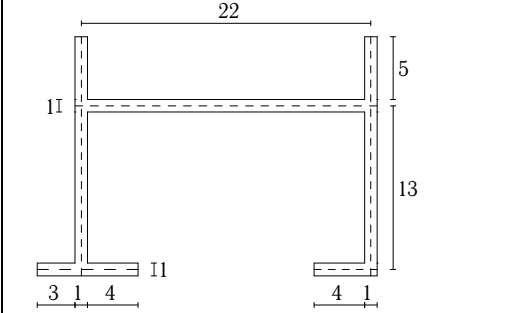
**Задача 19.16.**



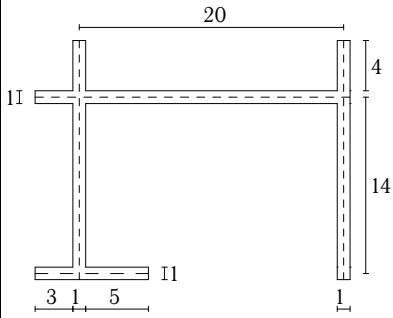
**Задача 19.17.**



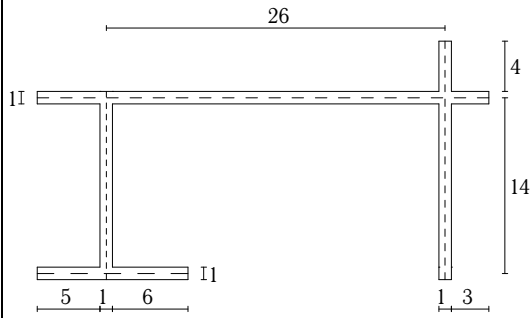
**Задача 19.18.**



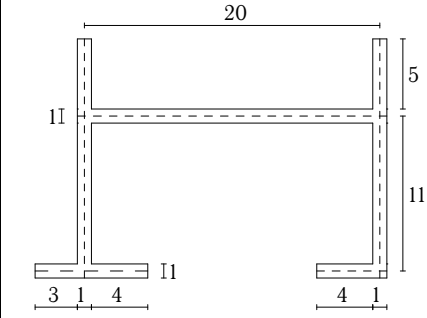
**Задача 19.19.**



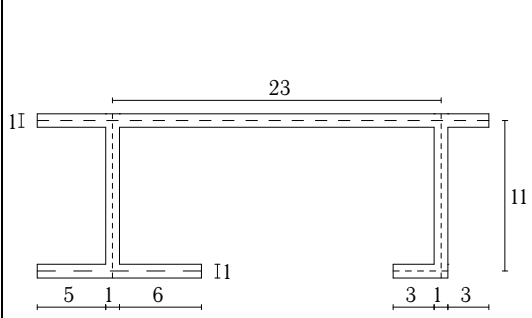
**Задача 19.20.**



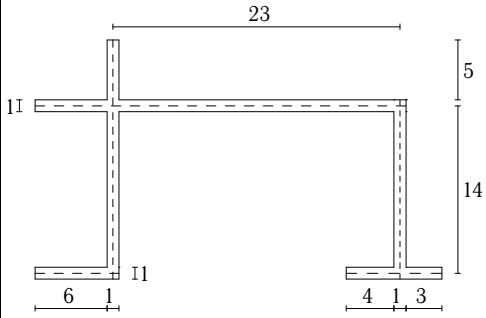
**Задача 19.21.**



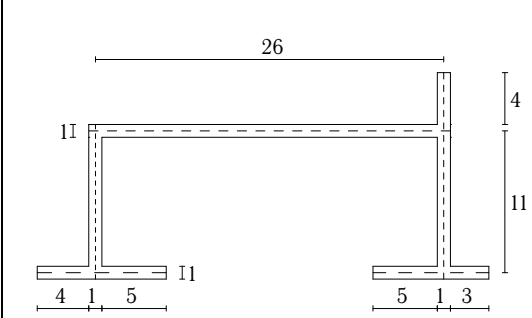
**Задача 19.22.**



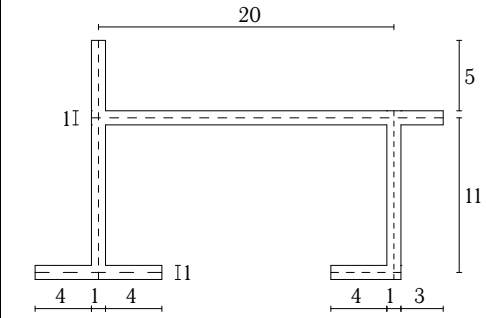
**Задача 19.23.**



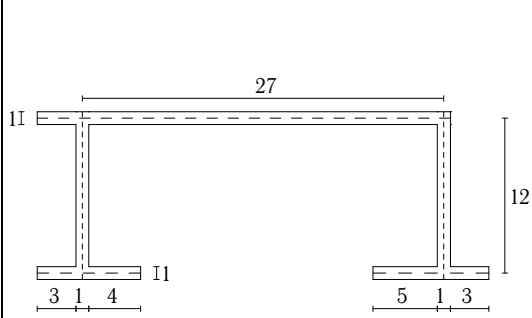
**Задача 19.24.**



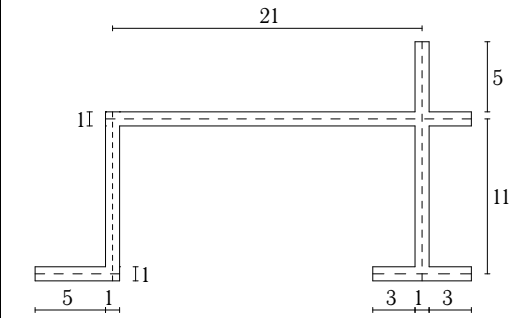
**Задача 19.25.**



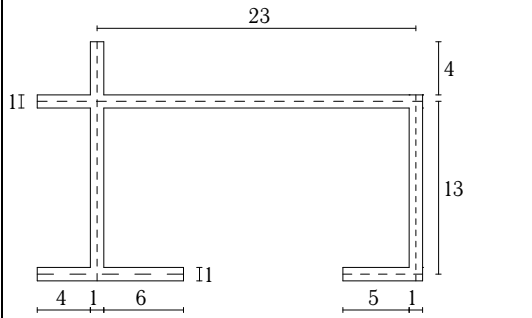
**Задача 19.26.**



**Задача 19.27.**



**Задача 19.28.**



**Кручение стержней открытого профиля**

№	$J_d$	$\theta$
	мм <sup>4</sup>	1/м
1	22.000	1.688
2	23.000	1.615
3	24.667	1.506
4	21.000	1.769
5	24.333	1.526
6	24.667	1.506
7	22.000	1.688
8	24.667	1.506
9	21.000	1.769
10	22.000	1.688
11	23.667	1.569
12	20.667	1.797
13	23.000	1.615
14	23.000	1.615
15	23.333	1.592
16	24.667	1.506
17	20.333	1.827
18	23.333	1.592
19	22.667	1.639
20	26.000	1.429
21	21.333	1.741
22	22.667	1.639
23	25.333	1.466
24	23.333	1.592
25	21.000	1.769
26	23.333	1.592
27	21.000	1.769
28	24.333	1.526