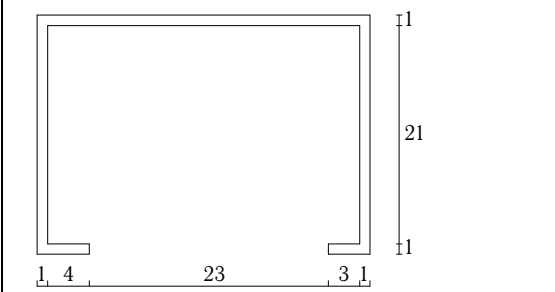


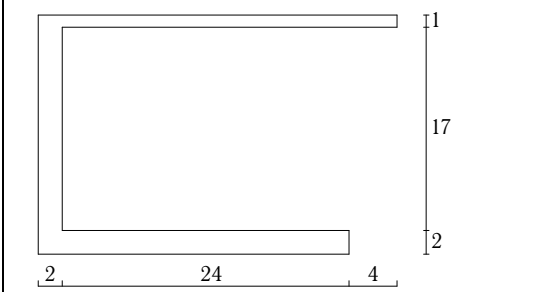
Кручение стержней открытого профиля

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

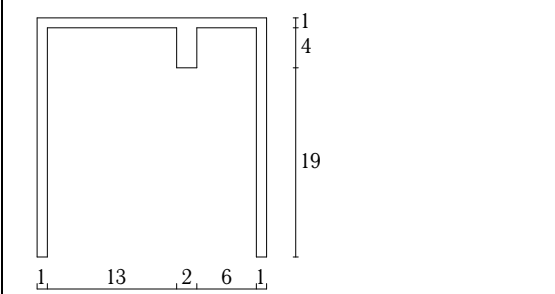
Задача 27.1.



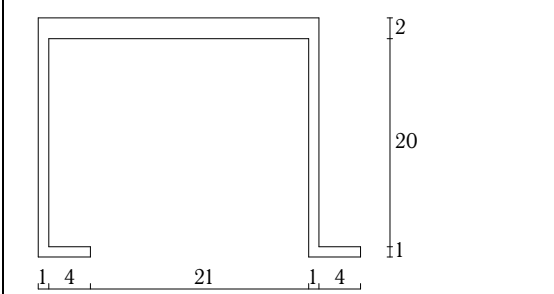
Задача 27.2.



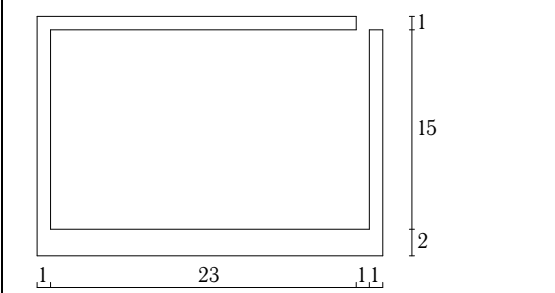
Задача 27.3.



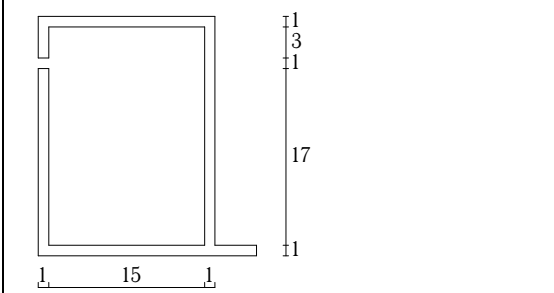
Задача 27.4.



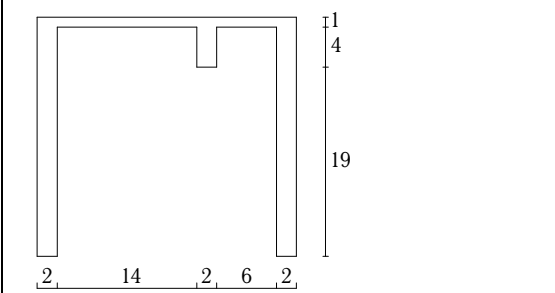
Задача 27.5.



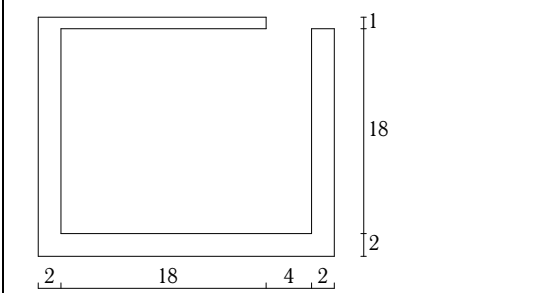
Задача 27.6.



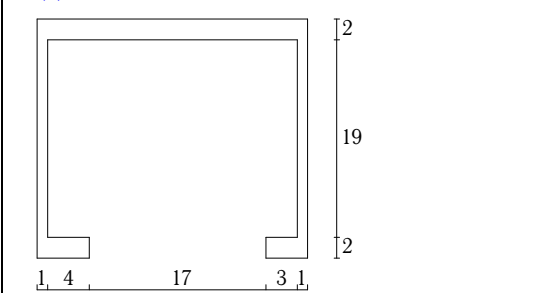
Задача 27.7.



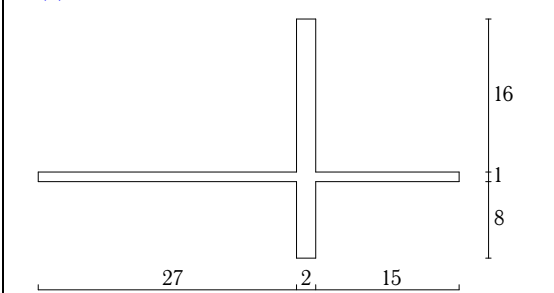
Задача 27.8.



Задача 27.9.

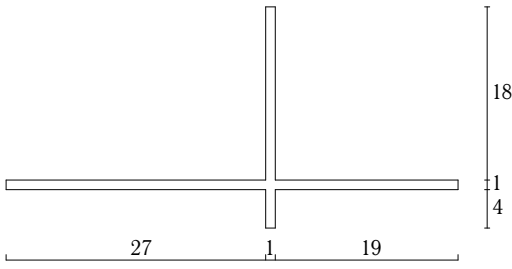


Задача 27.10.



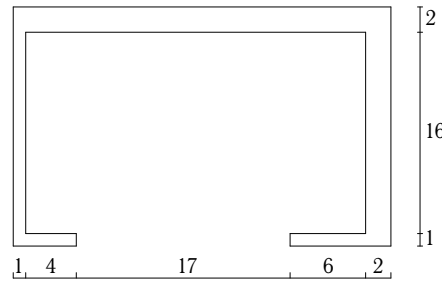
Задача 27.11.

4



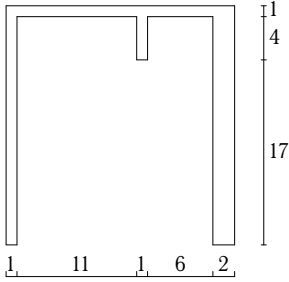
Задача 27.12.

4



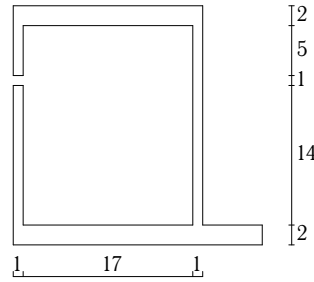
Задача 27.13.

4



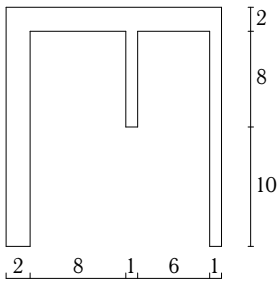
Задача 27.14.

4



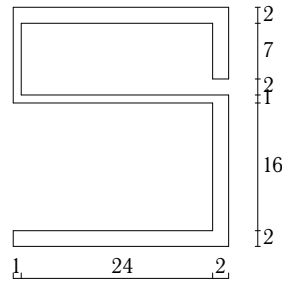
Задача 27.15.

4



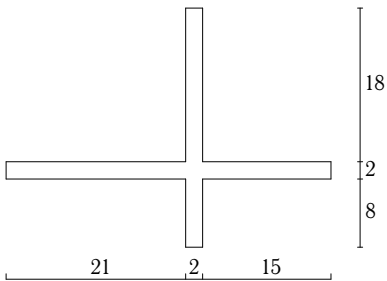
Задача 27.16.

4



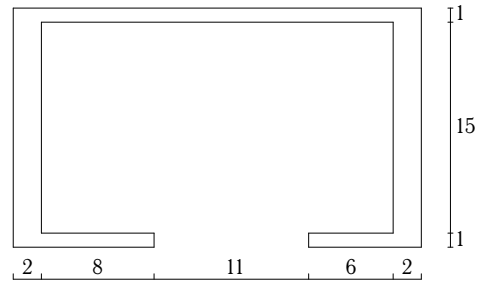
Задача 27.17.

4



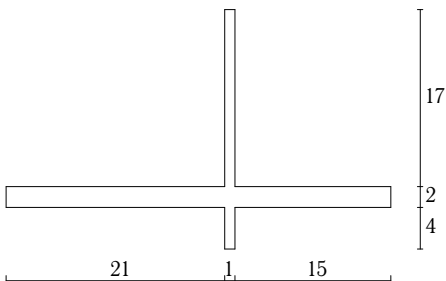
Задача 27.18.

4



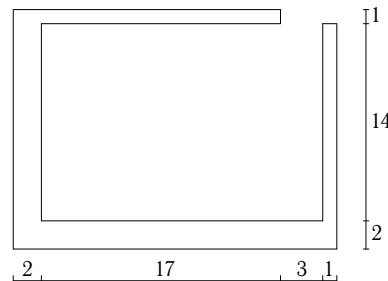
Задача 27.19.

4



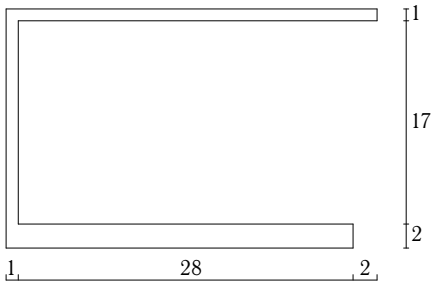
Задача 27.20.

4



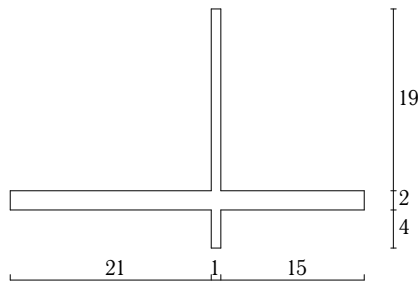
Задача 27.21.

4



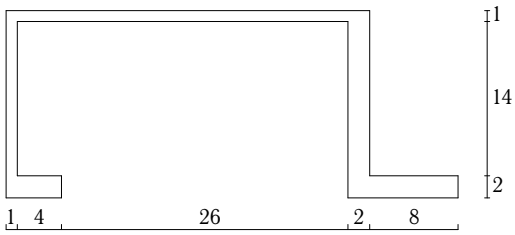
Задача 27.22.

4



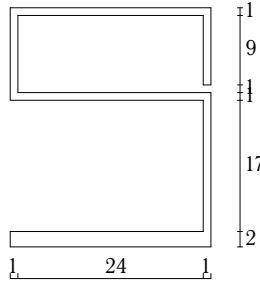
Задача 27.23.

4



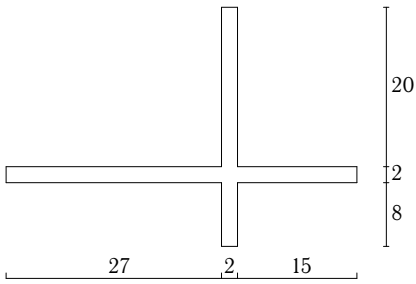
Задача 27.24.

4



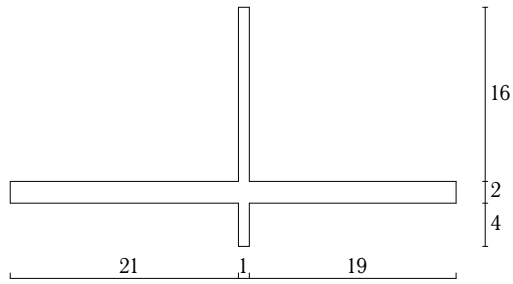
Задача 27.25.

4



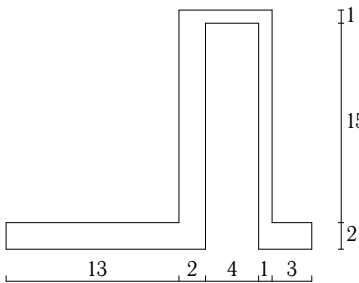
Задача 27.26.

4



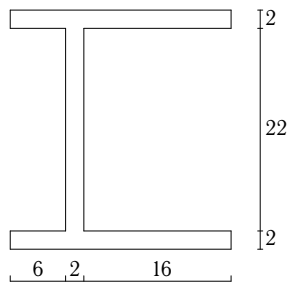
Задача 27.27.

4



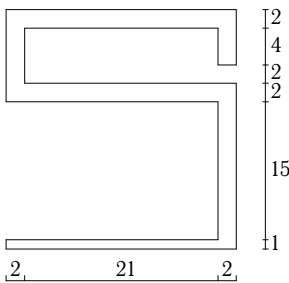
Задача 27.28.

4



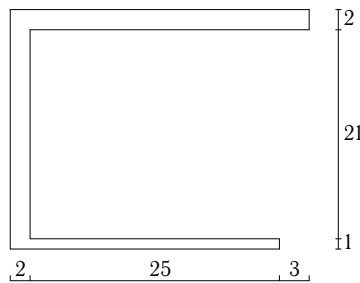
Задача 27.29.

4



Задача 27.30.

4



Кручение стержней открытого профиля

№	J_d мм ⁴	θ 1/м	τ_{max} МПа
1	27.667	1.343	36.145
2	124.667	0.298	16.043
3	33.667	1.103	59.406
4	88.667	0.419	22.556
5	87.333	0.425	22.901
6	26.333	1.410	37.975
7	142.000	0.262	14.085
8	172.000	0.216	11.628
9	106.000	0.350	18.868
10	78.667	0.472	25.424
11	23.000	1.615	86.957
12	132.333	0.281	15.113
13	71.333	0.521	28.037
14	130.333	0.285	15.345
15	104.667	0.355	19.108
16	217.333	0.171	9.202
17	170.667	0.218	11.719
18	95.667	0.388	20.906
19	105.667	0.352	18.927
20	109.667	0.339	18.237
21	93.333	0.398	21.429
22	106.333	0.349	18.809
23	93.000	0.399	21.505
24	98.667	0.376	20.270
25	192.000	0.193	10.417
26	116.000	0.320	17.241
27	98.000	0.379	20.408
28	186.667	0.199	10.714
29	208.333	0.178	9.600
30	145.000	0.256	13.793