

ZADANIE č.3

Vypočítajte a nakreslite priebehy namáhania a urobte kompletnú pevnostnú kontrolu.

	q_1	q_2	q_3	F_1	F_2	M_1	M_2	l_1	l_2	l_3	b	h
A1	q	q	-	F	-	-	-	1	1/2	-	5t	10t
A2	q	q	-	F	-	-	-	1	1/3	-	5t	10t
A3	q	q	-	F	-	-	-	1	1/4	-	5t	10t
A4	q	q	-	-	-	-	-	1	1/2	-	5t	10t
A5	q	q	-	-	-	-	-	1	1/3	-	5t	10t
A6	q	q	-	-	-	-	-	1	1/4	-	5t	10t
A7	-	-	-	F	-	-	-	1	1/2	-	5t	10t
A8	-	-	-	F	-	-	-	1	1/3	-	6t	12t
A9	-	-	-	F	-	-	-	1	1/4	-	6t	12t
A10	-	q	-	-	-	-	-	1	1/2	-	6t	12t
A11	-	q	-	-	-	-	-	1	1/3	-	6t	12t
A12	-	q	-	-	-	-	-	1	1/4	-	6t	12t
A13	q	-	-	F	-	-	-	1	1/2	-	6t	12t
A14	q	-	-	F	-	-	-	1	1/3	-	4t	8t
A15	q	-	-	F	-	-	-	1	1/4	-	4t	8t
A16	-	q	-	F	-	-	-	1	1/2	-	4t	8t
A17	-	q	-	F	-	-	-	1	1/3	-	4t	8t
A18	-	q	-	F	-	-	-	1	1/4	-	4t	8t
B1	q	q	-	-	-	-	-	1	1/2	-	5t	10t
B2	q	q	-	-	-	-	-	1	1/3	-	5t	10t
B3	q	q	-	-	-	-	-	1	1/4	-	5t	10t
B4	q	-	-	-	-	-	-	1	1/2	-	5t	10t
B5	q	-	-	-	-	-	-	1	1/3	-	5t	10t
B6	q	-	-	-	-	-	-	1	1/4	-	5t	10t
B7	-	q	-	-	-	-	-	1	1/2	-	5t	10t
B8	-	q	-	-	-	-	-	1	1/3	-	6t	12t
B9	-	q	-	-	-	-	-	1	1/4	-	6t	12t
B10	q	q	-	-	-	-	-	1	1/2	-	6t	12t
B11	q	q	-	-	-	-	-	1	1/3	-	6t	12t
B12	q	q	-	-	-	-	-	1	1/4	-	4t	8t
B13	q	q/2	-	-	-	-	-	1	1/2	-	4t	8t
B14	q	q/2	-	-	-	-	-	1	1/3	-	4t	8t
B15	q	q/2	-	-	-	-	-	1	1/4	-	4t	8t
C1	q	q	q	F	F	-	-	1/2	1	1/2	5t	10t
C2	q	q	q	F	F	-	-	1	1	1	5t	10t
C3	q	q	q	F	F	-	-	1/3	1	1/3	5t	10t
C4	-	q	-	F	F	-	-	1/2	1	1/2	5t	10t
C5	-	q	-	F	F	-	-	1	1	1	5t	10t
C6	-	q	-	F	F	-	-	1/3	1	1/3	5t	10t
C7	q	-	q	F	F	-	-	1/2	1	1/2	5t	10t
C8	q	-	q	F	F	-	-	1	1	1	6t	12t
C9	q	-	q	F	F	-	-	1/3	1	1/3	6t	12t
C10	q	q	q	-	-	-	-	1/2	1	1/2	6t	12t
C11	q	q	q	-	-	-	-	1	1	1	6t	12t
C12	q	q	q	-	-	-	-	1/3	1	1/3	6t	12t
C13	-	-	-	F	F	-	-	1/2	1	1/2	6t	12t
C14	-	-	-	F	F	-	-	1	1	1	4t	8t
C15	-	-	-	F	F	-	-	1/3	1	1/3	4t	8t

C16	q	-	q	-	-	-	-	1/2	1	1/2	4t	8t
C17	q	-	q	-	-	-	-	1	1	1	4t	8t
C18	q	-	q	-	-	-	-	1/3	1	1/3	4t	8t

Zadané parametre:

$$q = 10000 \text{ N/m}$$

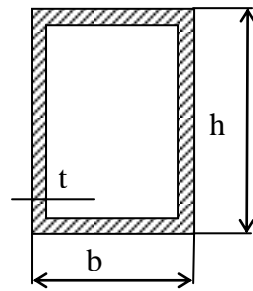
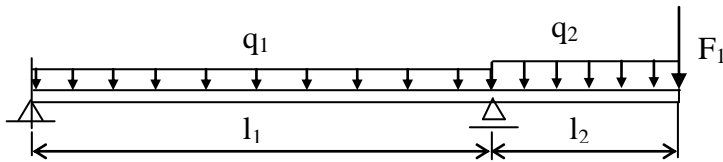
$$F = 20000 \text{ N}$$

$$l = 1 \text{ m}$$

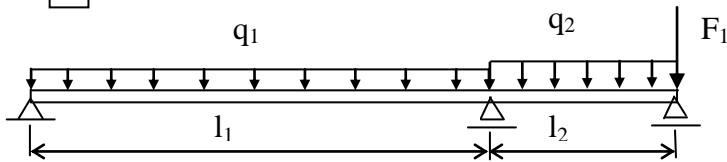
$$t = 10 \text{ mm}$$

$$\sigma_{\text{dov}} = 250 \text{ MPa}$$

A



B



C

