Remarks: See §4.4, pages 168 till 170

Answer:

The last stress distribution from the top is correct.

Explanation:
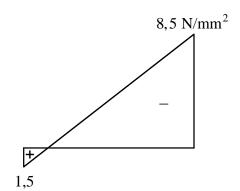
At the clamped end:

$M = 1,5$ kN/m ; Stress sign variation ⌇ i.e. tension at the left and compression at the right.

$N = -35$ kN

$$\sigma_{\text{left}} = -\frac{35 \times 10^3 \text{ N}}{10 \times 10^3 \text{ mm}^2} + \frac{1,5 \times 10^6 \text{ Nmm}}{300 \times 10^3 \text{ mm}^3} = +1,5 \text{ N/mm}^2$$

$$\sigma_{\text{right}} = -\frac{35 \times 10^3 \text{ N}}{10 \times 10^3 \text{ mm}^2} - \frac{1,5 \times 10^6 \text{ Nmm}}{300 \times 10^3 \text{ mm}^3} = -8,5 \text{ N/mm}^2$$

8,5 N/mm^2

1,5