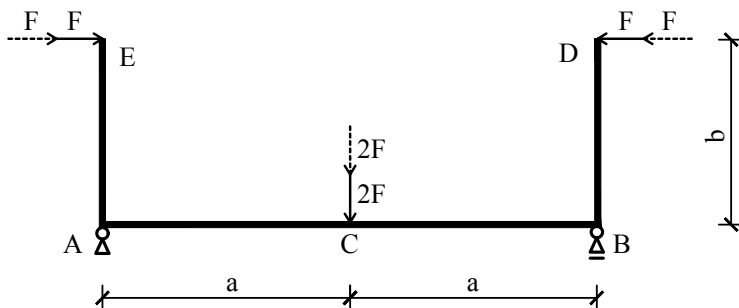


3. Draw the extrema of the bending moment in point C and that of the support reaction force at point B by testing the structure! Safety factors: dead load: 1.2 or 0.9; live load: 1.5 ((or 0)). Safety factors can be different at each point. Please hand in the bending moment diagrams for the testing and the loading schemes. (8+9 points)



Help:

- Examine the bending moment at point C and that of the support reaction force at point B in case of: a downward pointing concentrated force (e.g. 1 kN) acting at point C, a horizontal force (e.g. 1 kN) pointing to the left acting at point D, a horizontal force (e.g. 1 kN) pointing to the right and acting at point E
- Determine the load-combinations, that will answer the questions.
- Calculate the answers.

Data:

F [kN]	a [m]	b [m]

Results:

Data marked by grey colour should be signed values! Supports: positive \uparrow, \rightarrow . Internal forces: according to the figure!

$B_{y,max}$ [kN]	$B_{y,min}$ [kN]	$M_{C,max}$ [kNm]	$M_{C,min}$ [kNm]

