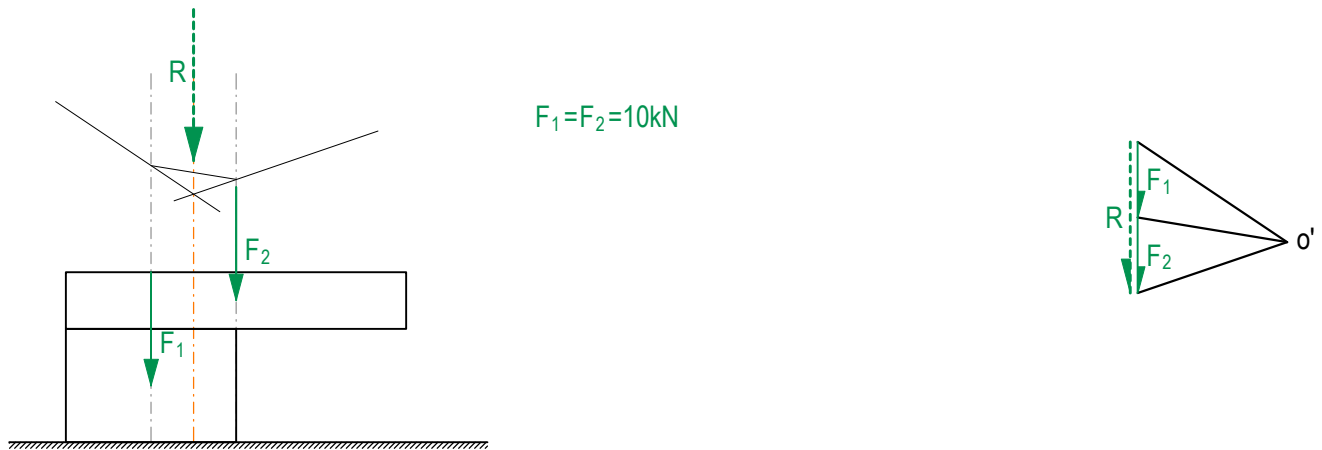


1.4

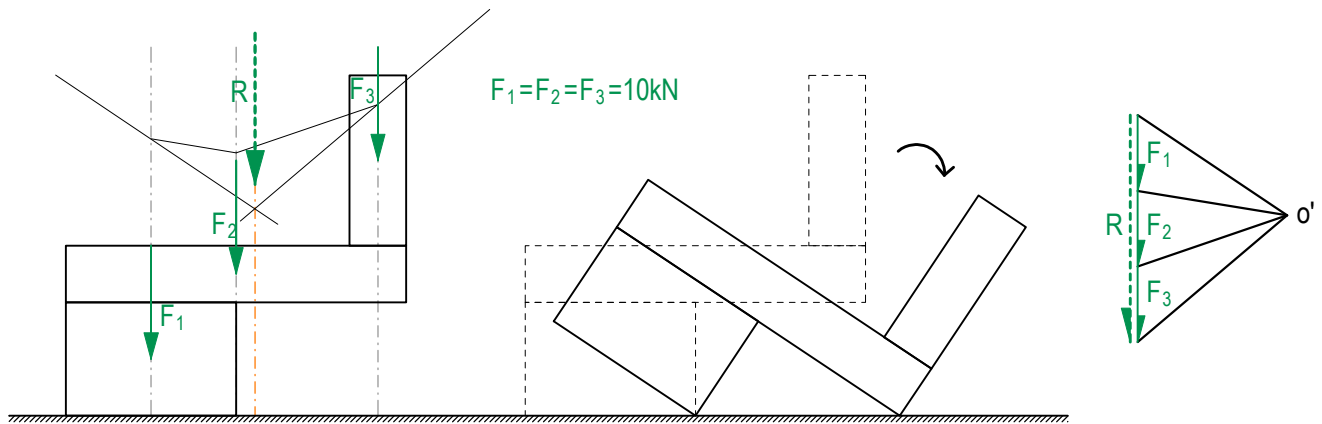
Compendium Structural Design I & II Stability

Three examples of differently stacked, glued together blocks are given. We are looking for the position of the resultant in the form diagram, in order to be able to judge whether the arrangement of the blocks is stable.

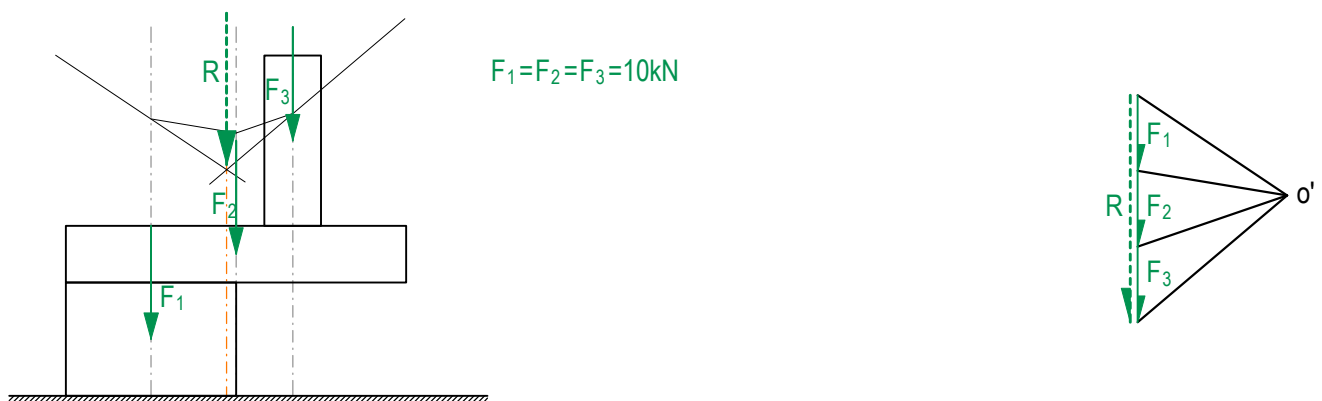
By means of an auxiliary construction, the position of the resultant is determined. Since the line of action of the resultant lies within the lowest building block, the construction is stable.



In the second example, the position of the resultant is again determined by means of an auxiliary construction. In this case the line of action of the resultant lies outside the lower block, which is why the construction would tip over to the right.



The previous example can be stabilized by moving the top block to the left until the line of action of the resultant is inside the bottom block again.



form diagrams 1:100

force diagrams 1cm $\hat{=}$ 10kN