

CIVL231 : Photo Contest 1

Ben Ticknor

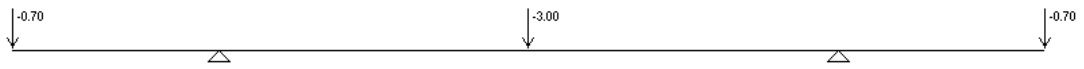
January 19, 2009



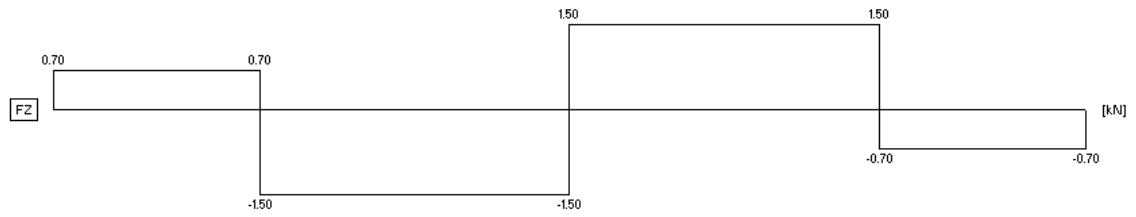
My structure is the red horizontal beam. This structure is a simply supported beam, with two supports and three loads. I have assumed the load in the centre is four times heavier than the two on the ends. This gives the structure a more exaggerated deflection than if all loads were equal. Loads are transferred along the beam, towards the supports, and down the supports.

For the purpose of this contest, I am assuming the supports are pin supports, even though they fix the beam at the top. A simpler beam might be only the centre section, made of one load in the centre and two firmly fixed ends.

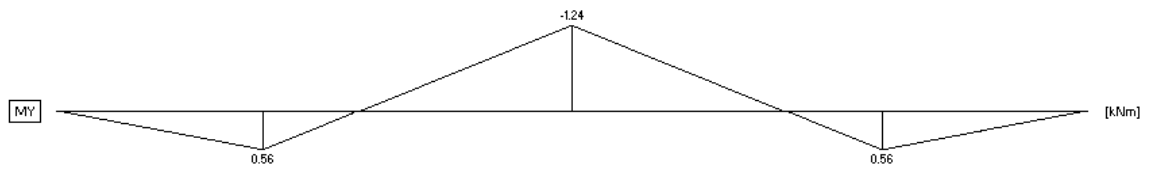
STATIC SYSTEM



SHEAR FORCE DIAGRAM



BENDING MOMENT DIAGRAM



DISPLACEMENT

