A MOBILE STRUCTURE BUILDING

The work consists in the making of a mobile structure. It’s compulsory to be made in a stable way.

Materials: Sticks, threads and weights (W) that can be wood paper, plastics or a combination of all of them. The minimum amount of weights will be 5 pieces.

How to make it in a good way.
To make a stable mobile you have to follow some important instructions:
1) Make every piece and weigh it
2) Draw a picture of the final appearance of the mobile, to define the distances from every piece to the center of rotation of every stage

As every stage in the mobile has two arms, for obtaining stability, it’s required to have the same result when multiplying distance by force in every piece.

For example, in the first stage of the drawing mobile:

\[ W_1 \times X_1 = W_2 \times Y_1 \]

For the 2\textsuperscript{nd} stage, the total weight of the first stage is \( F_1 \), and the calculations will be:

\[ F_1 \times X_2 = W_3 \times Y_2 \]

And for the 3\textsuperscript{rd} stage, take the weight of first and second stages (\( F_2 \)) and calculate as follows:

\[ F_2 \times X_3 = W_4 \times Y_3 \]

When following these instructions, the final result in the mobile will be successful.