

**Exercise N°02**

**\_Homework\_**

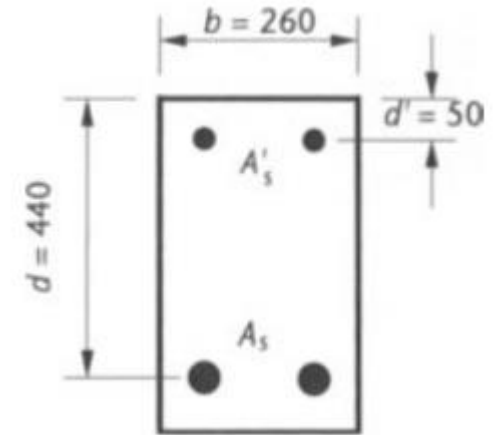
## PART A:

The section shown in Figure 1 is subject to an ultimate design moment of ~~228~~ 288 kN.m. The characteristic material strengths are  $f_{yk} = 460 \text{ N/mm}^2$  and  $f_{ck} = 30 \text{ N/mm}^2$ .

288

Determine the areas of reinforcement required.

Fig.1



## PART B:

Determine the ultimate moment of resistance of the cross-section shown in Figure 2 given that the characteristic strengths are  $f_{yk} = 460 \text{ N/mm}^2$  for the reinforcement and  $f_{ck} = 30 \text{ N/mm}^2$  for the concrete.

Fig.2

