Sets and parameters

R The set of resources

M The set of products

p^s_r [l] The available amount for resource $r \in R$

p^p_m [HUF/pcs] profit gained by selling a portion of product $m \in M$

$p^n_{m,r}$ [l/pcs] The amount of resource $r \in R$ needed to produce one portion of product $m \in M$

Variables

$x_m \in [0, \infty[$ [pcs] The number of portions we produce of product $m \in M$

Constraints

This equation ensures that the amount of resouce ¡r¿ required to produce all of the products is within the available stock.

$$\sum_{m \in M} x_m \cdot p^n_{m,r} \leq p^s_r \qquad \forall r \in R$$

Objective

The objective is to maximize the profit.

$$\sum_{m \in M} x_m \cdot p^p_m \to \max$$