

Paper company

Solve the following optimization problem

A paper company should cut its raw papers (black ones) into the color ones. The size of each paper is known. Determine the optimal cutting approach to supply the required quantities.

$$\begin{aligned} \min_{x,y,z,U} \quad & \sum_i i U_i \\ & 5x_i + 7y_i + 9z_i \leq 20U_i \\ & \sum_i x_i = N_x \\ & \sum_i y_i = N_y \\ & \sum_i z_i = N_z \end{aligned}$$

Ex30

