1. Production at your factory follows the Cobb-Douglas model. That is,

\[ P = k \cdot x^{0.6} y^{0.4}, \]

where \( x \) is the money you spend on labor, and \( y \) is the money you spend on capital equipment.

If you have $10,000 to spend on improving production, how much should you put towards labor, and how much towards capital equipment?