PŘ. $\lambda \in [0,10]$

+ BÁZE!

$\min \; 3x_1 + 5x_2$

a.t. $2x_1 + x_2 \geq 10$ ①

$x_1 + 2x_2 \geq 12 + \lambda$ ②

$x_1 + x_2 \geq 8$ ③

$x_1, x_2 \geq 0$

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1) $\lambda \leq -4$: $x_1 = 8, x_2 = 0$

2) $-4 \leq \lambda \leq 2$ $x_1 = 4 - \lambda$

$x_2 = 4 + \lambda$

3) $2 \leq \lambda \leq 8$ $x_1 = \frac{8-\lambda}{3}$

$x_2 = \frac{14+2\lambda}{3}$

4) $\lambda \geq 8$ $x_1 = 0$

$x_2 = 6 + \frac{\lambda}{2}$

GRAFICKY...

pomocí optimální hodnoty a řešení.

BODY:

① (0,10), (5,0)

② $\lambda = 0$ (0,6), (12,0)

③ (0,8), (8,0)

VČ. FCE: $3x_1 = -5x_2$

(0,0), (5,−3)

① $2x_1 + x_2 = 10$

② $x_1 + 2x_2 = 12 + \lambda$

$-3x_2 = -14 - 2\lambda$

$x_2 = \frac{14+2\lambda}{3}$

$x_1 = \frac{8-\lambda}{3}$

② $x_1 + 2x_2 = 12 + \lambda$

③ $x_1 + x_2 = 8$

$x_2 = 4 + \lambda$

$x_1 = 4 - \lambda$

① $2x_1 + x_2 = 10$

③ $x_1 + x_2 = 8$

$x_1 = 2$

$x_2 = 6$ → ②

$2 + 12 = 12 + \lambda$

$\lambda = 2$