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$\max Z' = -Z = -x_1 - x_2 - x_3$

$$\begin{cases} 2x_1 + 7.5x_2 + 3x_3 - x_4 = 10000 \\ 20x_1 + 5x_2 + 10x_3 - x_5 = 30000 \\ x_1, x_2, x_3, x_4, x_5 \geq 0 \end{cases}$$ 标准形式

$\max Z' = -x_1 - x_2 - x_3 - Mx_6 - Mx_7 = (22M-1)x_1 + (12.5M-1)x_2 + (13M-1)x_3 - Mx_4 - Mx_5 - 40000M$

$$\begin{cases} 2x_1 + 7.5x_2 + 3x_3 - x_4 + x_6 = 10000 \\ 20x_1 + 5x_2 + 10x_3 - x_5 + x_7 = 30000 \\ x_1, x_2, x_3, x_4, x_5, x_6, x_7 \geq 0 \end{cases}$$

		x_1	x_2	x_3	x_4	x_5
Z'	$-40000M$	$22M-1$	$12.5M-1$	$13M-1$	$-M$	$-M$
x_6	10000	2	7.5	3	-1	0
x_7	30000	20	5	10	0	-1

$x_1 = -\frac{1}{4}x_2 - \frac{1}{2}x_3 + \frac{1}{20}x_5 - \frac{1}{20}x_7 + 1500$

$\max Z' = (7M - \frac{3}{4})x_2 + (2M - \frac{1}{2})x_3 - Mx_4 + (\frac{1}{10}M - \frac{1}{20})x_5 + (-\frac{11}{10}M + \frac{1}{20})x_7 - 7000M - 1500$

$$\begin{cases} 7x_2 + 2x_3 - x_4 + \frac{1}{10}x_5 + x_6 - \frac{1}{10}x_7 = 7000 \\ x_1 + \frac{1}{4}x_2 + \frac{1}{2}x_3 - \frac{1}{20}x_5 + \frac{1}{20}x_7 = 1500 \\ x_1, x_2, x_3, x_4, x_5, x_6, x_7 \geq 0 \end{cases}$$

		x_2	x_3	x_4	x_5	x_7
Z'	$-7000M-1500$	$7M - \frac{3}{4}$	$2M - \frac{1}{2}$	$-M$	$\frac{1}{10}M - \frac{1}{20}$	$-\frac{11}{10}M + \frac{1}{20}$
x_6	7000	7	2	-1	$\frac{1}{10}$	$-\frac{1}{10}$
x_1	1500	$\frac{1}{4}$	$\frac{1}{2}$	0	$-\frac{1}{20}$	$\frac{1}{20}$

$x_2 = -\frac{2}{7}x_3 + \frac{1}{7}x_4 - \frac{1}{70}x_5 - \frac{1}{7}x_6 + \frac{1}{70}x_7 + 1000$

$\max Z' = -\frac{2}{7}x_3 - \frac{3}{28}x_4 - \frac{11}{280}x_5 + (-M+\frac{3}{28})x_6 + (-M+\frac{11}{280})x_7 - 2250$

所有系数均为负数，此时 $x_3 \sim x_7$ 均取0

$\max Z' = -2250$

$\therefore \min Z = -\max Z' = 2250$