6.1. a)
$$2\,150 = 200x_1 + 150x_2 + 100x_3$$
$$470 = 50x_1 + 30x_2 + 20x_3$$
$$150 = 20x_1 + 10x_1 + 0x_3$$

$$\Rightarrow$$

2150	200	150	100
470	50	30	20
150	20	10	0

$$\Rightarrow$$

21.5	2	1.5	1
470	50	30	20
150	20	10	0

$$\Big) k = -\frac{20}{7} \longrightarrow$$

21.5	2	1.5	1
40	10	0	0
150	20	10	0

$$\Rightarrow$$

21.5	2	1.5	1
150	20	10	0
40	10	0	0

$$\Rightarrow \frac{43}{2} = 2x_1 + \frac{3}{2}x_2 + x_3 \quad ①$$
$$150 = 20x_1 + 10x_2 \quad ②$$
$$40 = 10x_1 \quad ③$$

1. $\frac{43}{2} = 2\cdot 4 + \frac{3}{2}\cdot 7 + x_3$

$\frac{43}{2} = 8 + \frac{21}{2} + x_3$

$\frac{43}{2} = \frac{37}{2} + x_3$

$3 = x_3$

3. $40 = 10x_1$

$4 = x_1$

2. $150 = 20\cdot 4 + 10x_2$

$150 = 80 + 10x_2$

$70 = 10x_2$

$7 = x_2$

b)
$$1600 = 200x_1 + 150x_2 + 100x_3$$
$$350 = 50x_1 + 30x_2 + 20x_3$$
$$120 = 20x_1 + 10x_1 + 0x_3$$

$$\Rightarrow$$

1600	200	150	100
350	50	30	20
120	20	10	0

$$\Rightarrow$$

16	2	1.5	1
350	50	30	20
120	20	10	0

$$\Big) k = -\frac{20}{7}$$

$$\Rightarrow$$

16	2	1.5	1
30	10	0	0
120	20	10	0

$$\Rightarrow$$

16	2	1.5	1
120	20	10	0
30	10	0	0

$$\Rightarrow$$

① $16 = 2x_1 + 1.5x_2 + x_3$

② $120 = 20x_1 + 10x_2$

③ $30 = 10x_1$

3. $30 = 10x_1$

$3 = x_1$

2. $120 = 20\cdot 3 + 10\cdot x_2$

$120 = 60 + 10x_2$

$60 = 10x_2$

$6 = x_2$

1. $16 = 2\cdot 3 + 1.5\cdot 6 + x_3$

$16 = 6 + 9 + x_3$

$1 = x_3$