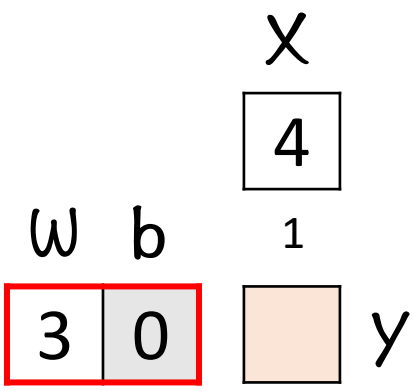
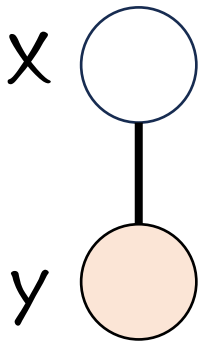
Linear Layer

Exercise 1

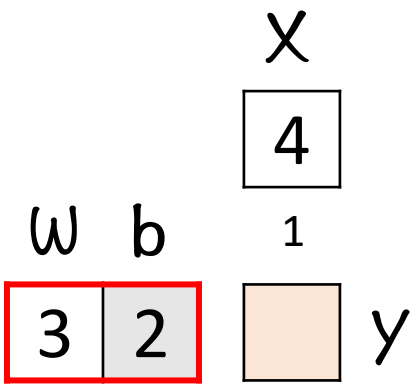


$$y = [W|b] \cdot [X|1] = WX+b$$

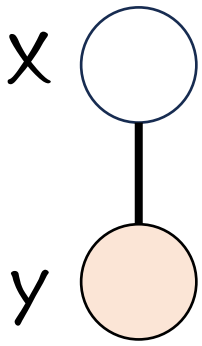


Linear Layer

Exercise 2

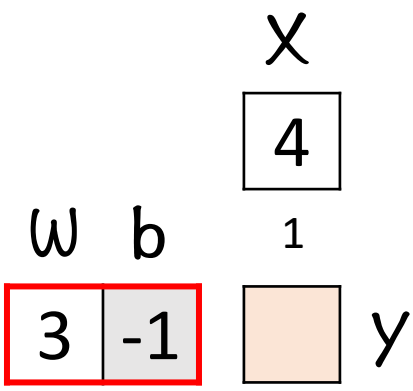


$$y = [W|b] \cdot [X|1] = WX+b$$

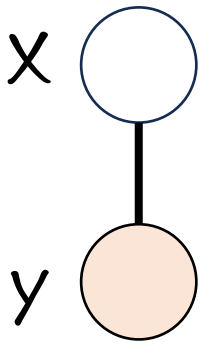


Linear Layer

Exercise 3

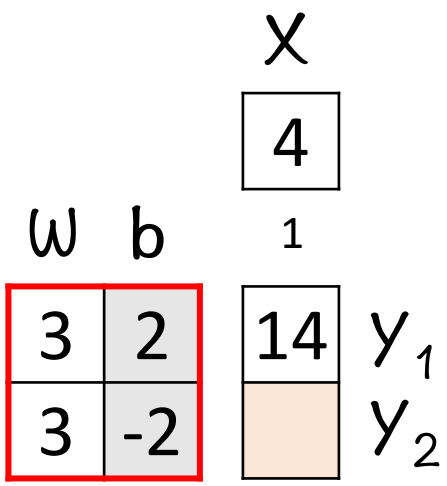


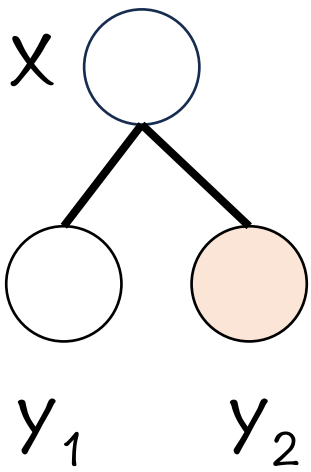
$$y = [W|b] \cdot [X|1] = WX+b$$



Linear Layer

Exercise 4

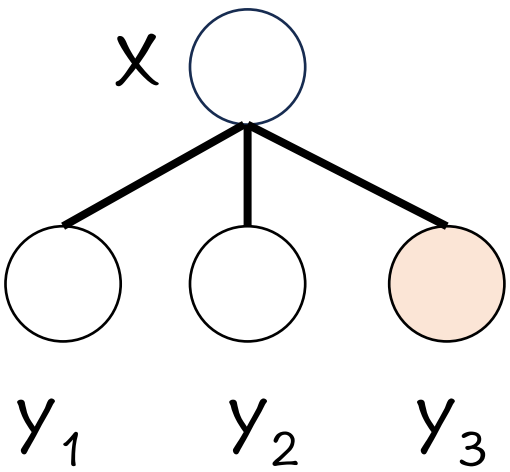




Linear Layer

Exercise 5

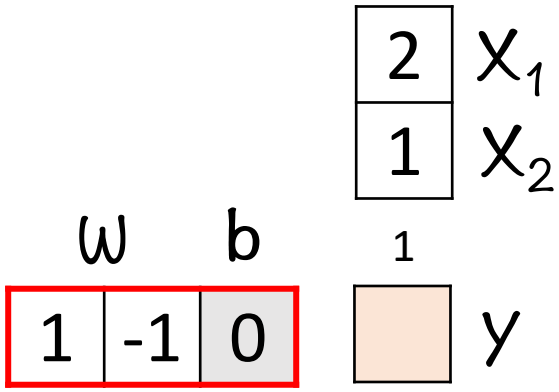
		X	
		2	
W	b	1	
3	2	8	y_1
3	-2	4	y_2
3	-4		y_3

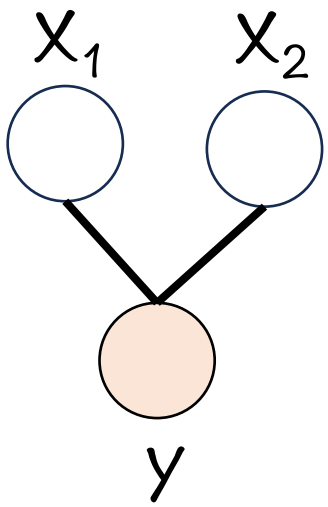


2

Linear Layer

Exercise 6

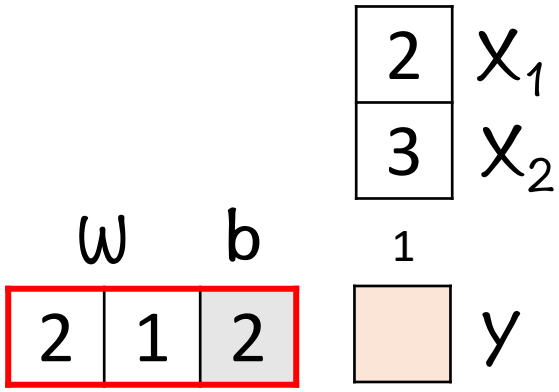


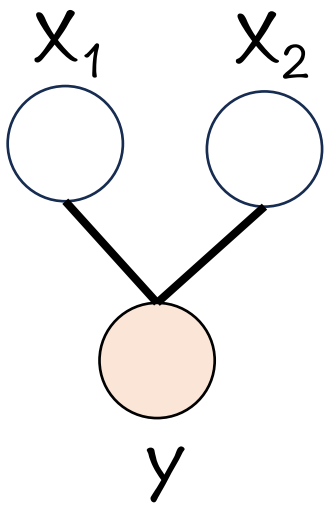


1

Linear Layer

Exercise 7



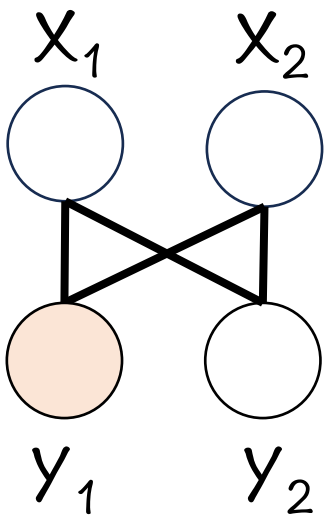


Linear Layer

Exercise 8

2	x_1	
-1	x_2	

w		b	1	
1	1	0		y_1
1	-1	0	3	y_2



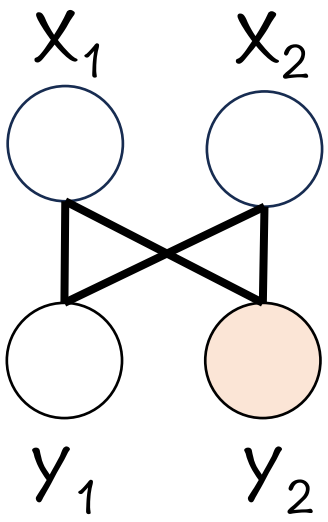
Linear Layer

Exercise 9

2	x_1	
1	x_2	

w		b
1	1	2
1	-1	2

1	
5	y_1
	y_2



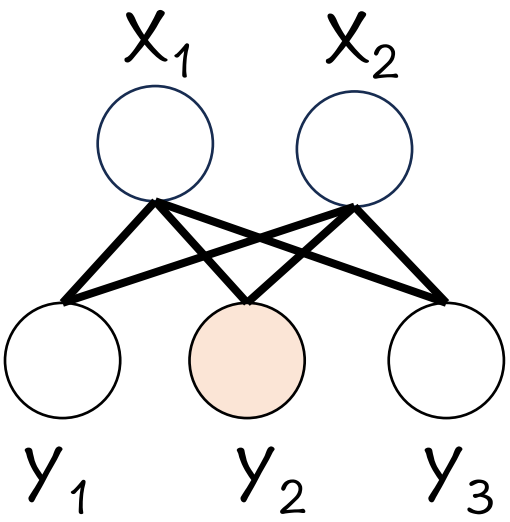
Linear Layer

Exercise 10

3	x_1	
2	x_2	

W		b
1	1	0
0	1	0
1	-1	0

1	
5	y_1
	y_2
1	y_3



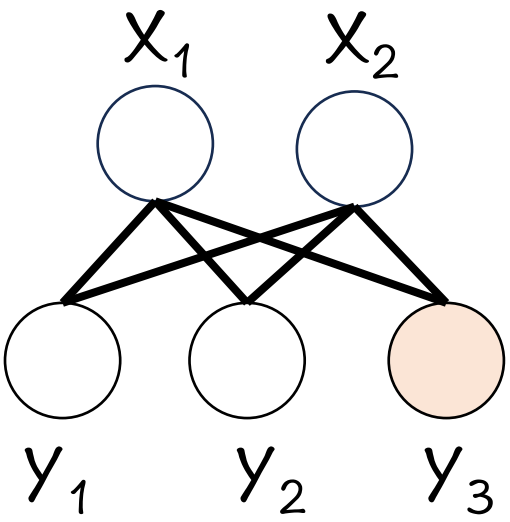
Linear Layer

Exercise 11

4	x_1	
7	x_2	

w		b
1	1	0
1	-1	0
-1	1	0

1	
11	y_1
-3	y_2
	y_3



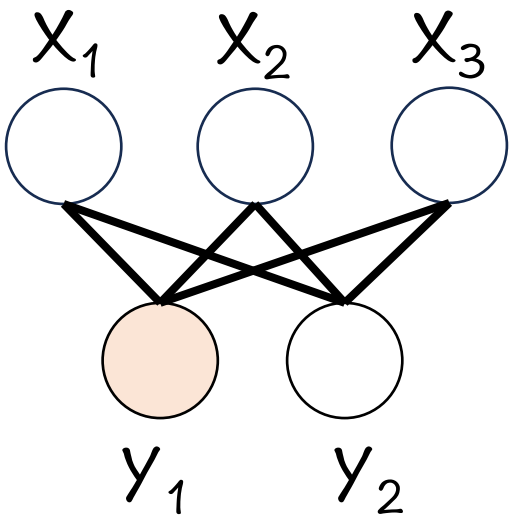
Linear Layer

Exercise 12

1	x_1
-2	x_2
3	x_3

W			b
1	-1	1	0
1	1	1	0

1	
	y_1
2	y_2



Linear Layer

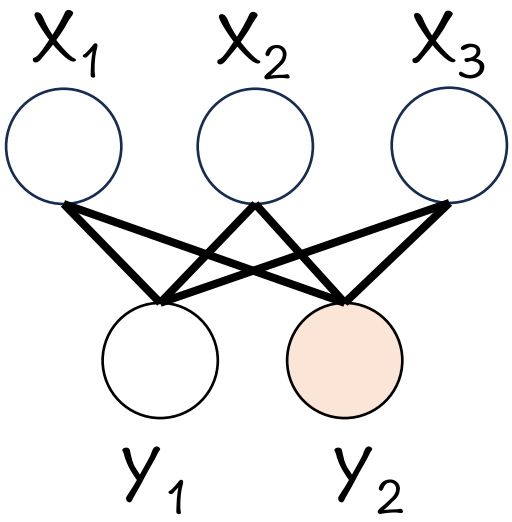
Exercise 13

3	x_1
1	x_2
2	x_3

W			b
1	1	0	-1
1	0	1	-1

1

3	y_1
	y_2



Linear Layer

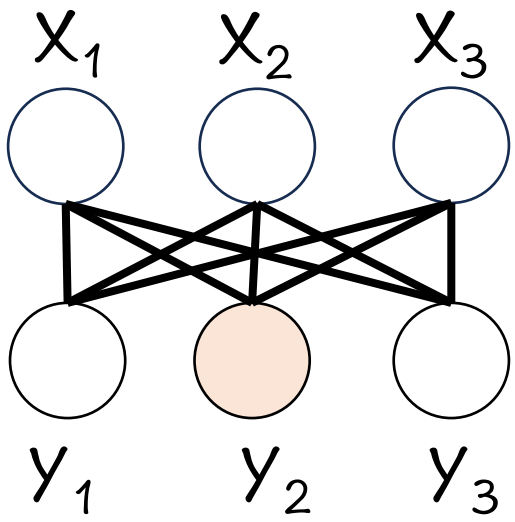
Exercise 14

3	x_1
1	x_2
2	x_3

W			b
1	1	0	0
0	1	1	0
1	0	1	0

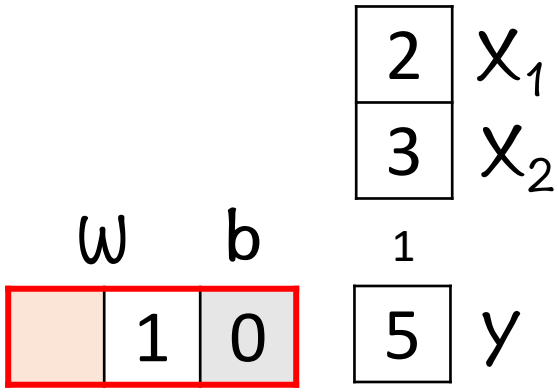
1

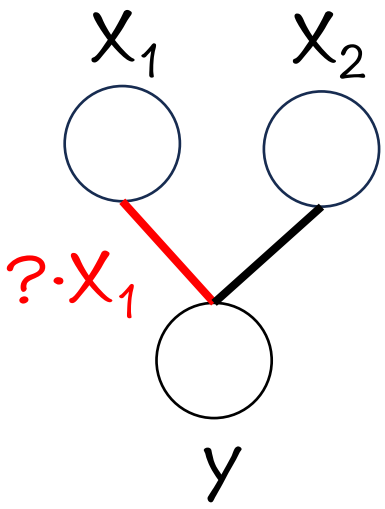
4	y_1
	y_2
5	y_3



Linear Layer

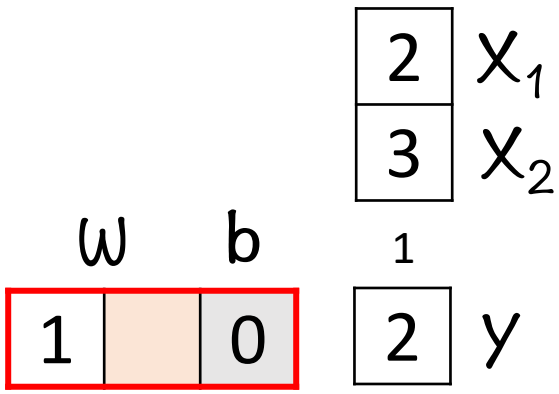
Exercise 15

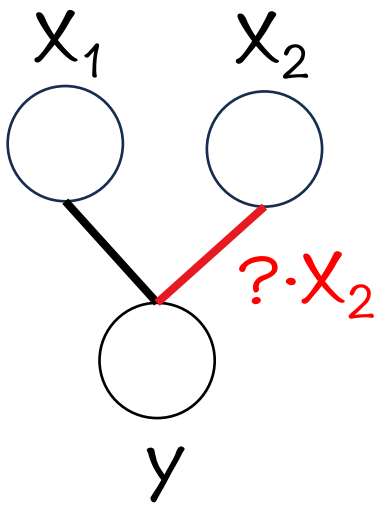




Linear Layer

Exercise 16

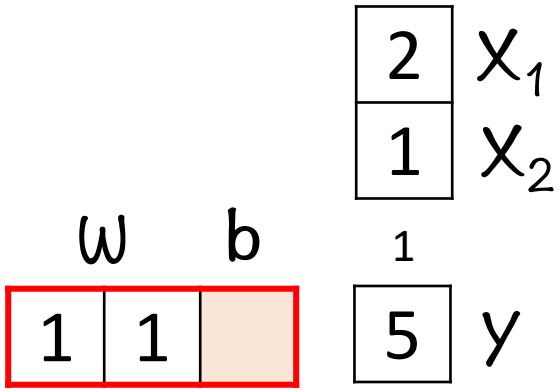


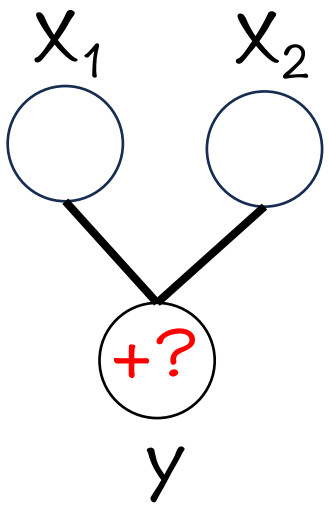


0

Linear Layer

Exercise 17

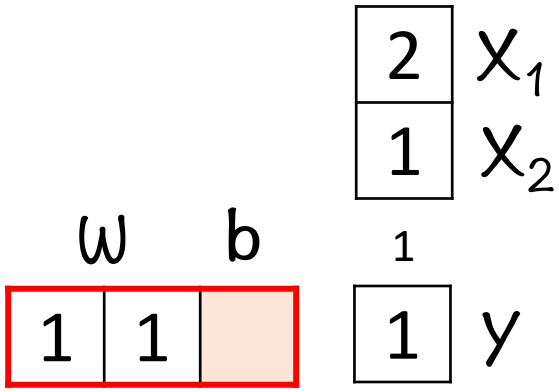


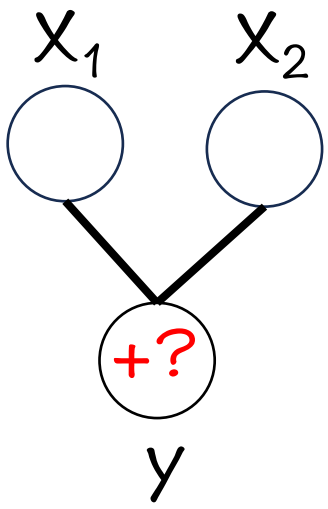


2

Linear Layer

Exercise 18





-2

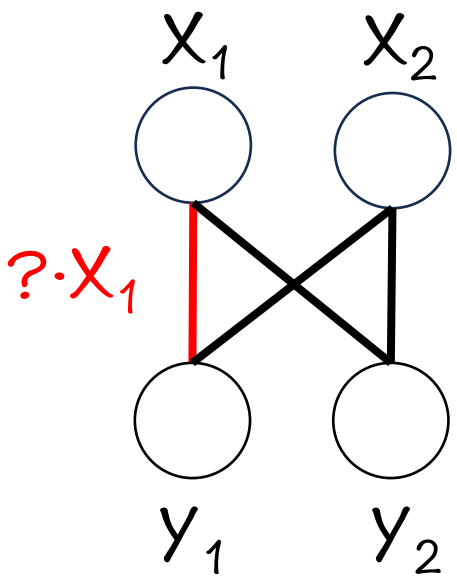
Linear Layer

Exercise 19

3	x_1
5	x_2

	w	b
	1	0
1	-1	0

1	
2	y_1
-2	y_2



-1

Linear Layer

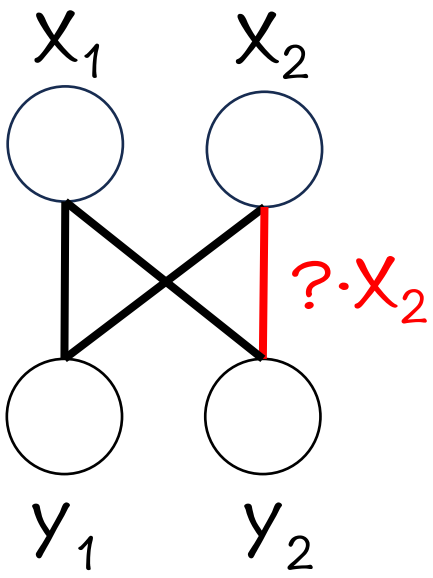
Exercise 20

4	x_1	
2	x_2	

w		b
1	2	0
1		0

1

8	y_1
10	y_2



Linear Layer

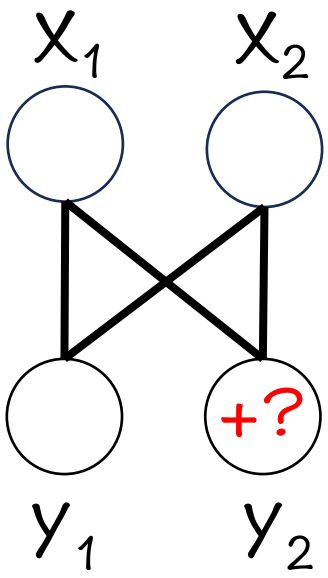
Exercise 21

3	x_1	
2	x_2	

w		b
1	2	1
1	2	

1

8	y_1
12	y_2



Linear Layer

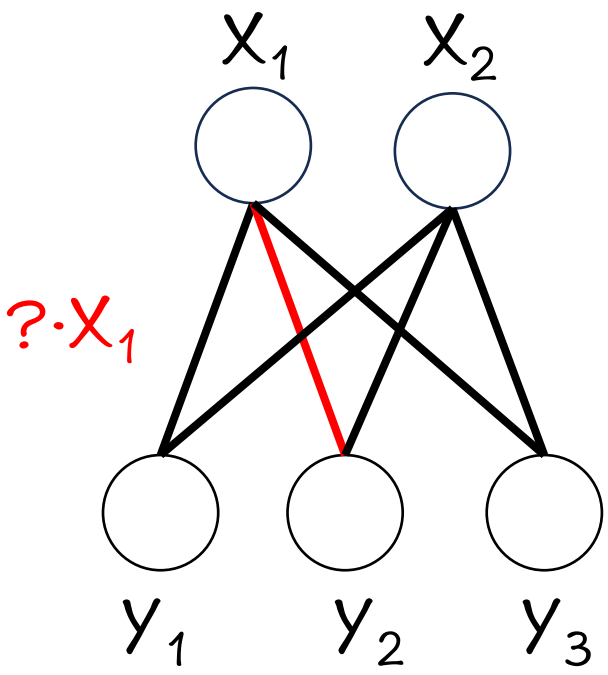
Exercise 22

3	x_1
2	x_2

W		b
1	1	0
	1	0
3	0	0

1

5	y_1
8	y_2
9	y_3



Linear Layer

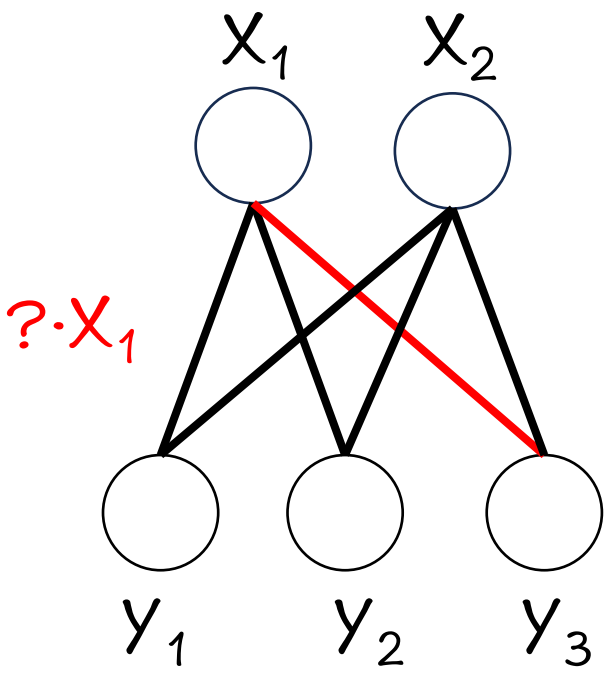
Exercise 23

2	x_1
1	x_2

w		b
1	1	0
2	1	0
	1	0

1

3	y_1
5	y_2
7	y_3



Linear Layer

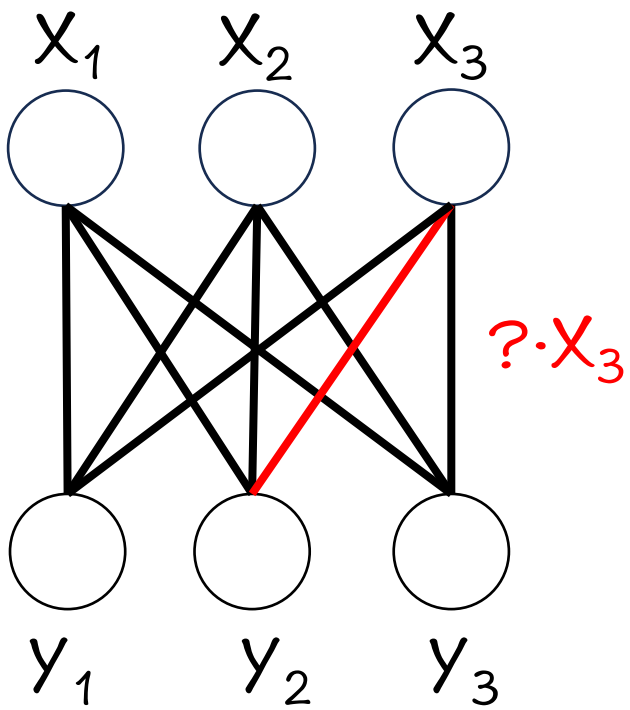
Exercise 24

2	x_1
1	x_2
2	x_3

W			b
1	1	0	0
1	1		0
1	1	1	0

1

3	y_1
1	y_2
5	y_3



-1

Linear Layer

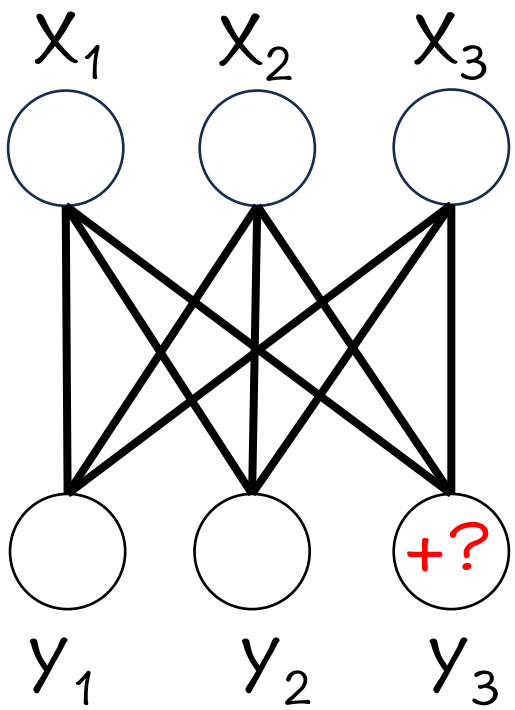
Exercise 25

2	x_1
5	x_2
1	x_3

W			b
1	1	0	0
1	1	0	-2
1	1	0	

1

7	y_1
5	y_2
3	y_3



-4