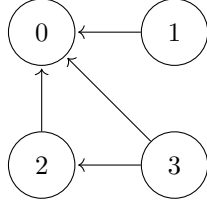


Exercise 10.2

a)



b)

Agent	Current Value	Agent View	Constraint List
0	1	$\{x_1 \rightarrow 1, x_2 \rightarrow 2, x_3 \rightarrow 3\}$	$\{x_0 < x_1, x_0 \neq x_2, x_0 \neq x_3\}$
1	1	\emptyset	\emptyset
2	2	$\{x_3 \rightarrow 3\}$	$\{x_2 \neq x_3\}$
3	3	\emptyset	\emptyset

Agent 1 sends (*ok?*, $x_1 \rightarrow 1$) to Agent 0.

Agent 2 sends (*ok?*, $x_2 \rightarrow 2$) to Agent 0.

Agent 3 sends (*ok?*, $x_3 \rightarrow 3$) to Agent 0.

Agent 3 sends (*ok?*, $x_3 \rightarrow 3$) to Agent 2.

Agent	Current Value	Agent View	Constraint List
0	2	$\{x_1 \rightarrow 1, x_2 \rightarrow 2, x_3 \rightarrow 3\}$	$\{x_0 < x_1, x_0 \neq x_2, x_0 \neq x_3\}$
1	1	\emptyset	\emptyset
2	2	$\{x_3 \rightarrow 3\}$	$\{x_2 \neq x_3\}$
3	3	\emptyset	\emptyset

Agent 0 changes its number to 2 and sends (*nogood!*, $0, x_2 \rightarrow 2$) to Agent 2.

Agent	Current Value	Agent View	Constraint List
0	2	$\{x_2 \rightarrow 1, x_2 \rightarrow 4, x_3 \rightarrow 3\}$	$\{x_0 < x_1, x_0 \neq x_2, x_0 \neq x_3\}$
1	1	\emptyset	\emptyset
2	4	$\{x_3 \rightarrow 3\}$	$\{x_2 \neq x_3, x_2 \neq 2\}$
3	3	\emptyset	\emptyset

Agent 2 changes its number to 4 sends (*ok?*, $x_2 \rightarrow 4$) to Agent 1.