

Question:

How to work out which role you have at the end of the current cycle, if you just have the pattern table?

						Relabeling	
	1	2	3	4	5	Role at end of the cycle	new role, next cycle
A	pB	pC	pB	pC	pB	=> A	B
B	pA	s	pA	s	pA	=> B	C
C	s	pA	s	pA	s	=> C	A
M1	sCC	iAC	cC	sCA	sAB	=> M1	M1
M2	cB	sBB	sBA	sAC	iCC	=> M2	M2

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Solution:

The only manipulation that we have to look at is the intercept. It tells us which juggler is replaced by a manipulator and therefore will be the new manipulator.

If no interaction happens with a juggler, he keeps his role. So we can denote that A is still A at the end of the cycle, and B is still B.

But what happens to C, M1 and M2?

We draw a path for every juggler who is involved in manipulation, for both manipulated jugglers and for manipulators. The Path starts at the left side of the table and moves with the intercept through the pattern. If there is no more manipulation for the rest of the cycle, continue to the right and stop at the last entry in the line to see which role this juggler finally has taken over.

On the next side you find all 3 paths in separate tables and all together in one table on page 3.

Following a path you can not only see what role one juggler has at the beginning of the next cycle. You can see at any moment which role he has in the given cycle.

Here's the path for juggler who started with role C. His new role will be M1:

	1	2	3	4	5	Role at end of the cycle	Relabeling new role, next cycle
A	pB	pC	pB	pC	pB	=> A	B
B	pA	s	pA	s	pA	=> B	C
C	s	pA	s	pA	s	=> C	A
M1	sCC	iAC	cC	sCA	sAB	=> M1	M1
M2	cB	sBB	sBA	sAC	iCC	=> M2	M2

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The juggler started with role M1 ends up in role M2:

	1	2	3	4	5	Role at end of the cycle	Relabeling new role, next cycle
A	pB	pC	pB	pC	pB	=> A	B
B	pA	s	pA	s	pA	=> B	C
C	s	pA	s	pA	s	=> C	A
M1	sCC	iAC	cC	sCA	sAB	=> M1	M1
M2	cB	sBB	sBA	sAC	iCC	=> M2	M2

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And the one who started with role M2 finally does role A:

	1	2	3	4	5	Role at end of the cycle	Relabeling new role, next cycle
A	pB	pC	pB	pC	pB	=> A	B
B	pA	s	pA	s	pA	=> B	C
C	s	pA	s	pA	s	=> C	A
M1	sCC	iAC	cC	sCA	sAB	=> M1	M1
M2	cB	sBB	sBA	sAC	iCC	=> M2	M2

Working out a turntable in a pattern with more than one manipulator:

Der Arsch (the ass)

Putting it all together:

							Relabeling
	1	2	3	4	5	Role at end of the cycle	new role, next cycle
A	pB	pC	pB	pC	pB	=> A	B
B	pA	s	pA	s	pA	=> B	C
C	s	pA	s	pA	s	=> C	A
M1	sCC	iAC	cC	sCA	sAB	=> M1	M1
M2	cB	sBB	sBA	sAC	iCC	=> M2	M2

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Now it is easy to write down the turntable for the whole pattern:

iC	iC	Step	1	2	3	4	5
Name							
			A	B	C	M1	M2
			B	C	M1	M2	A
			C	M1	M2	A	B
			M1	M2	A	B	C
			M2	A	B	C	M1

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