

	1	3	2	2	
1	4				2
3					2
3			4	1	
2		4			3
	2	1	3	2	

put in 4s right next to 1s

1	4				
---	---	--	--	--	--

	1	3	2	2	
1	4			3	2
3					2
3				4	1
2	3	4			3
	2	1	3	2	

if there is a 1 opposite to a 2 next to the 2 is a 3

2	3				1
---	---	--	--	--	---

	1	3	2	2	
1	4			3	2
3			4		2
3				4	1
2	3	4			3
	2	1	3	2	

if there is a 3 opposite to a 2, two away there is a 4

2		4			3
---	--	---	--	--	---

	1	3	2	2	
1	4			3	2
3			4		2
3				4	1
2	3	4			3
	2	1	3	2	

b  
u  
f


copy matrix into buffer

	1	3	2	2	
1	4			3	2
3			4		2
3				4	1
2	3	4			3
	2	1	3	2	

b  
u  
f

	1	3	2	2	
1	4			3	2
3			4		2
3				4	1
2	3	4			3
	2	1	3	2	

lock circle and rows and columns  
with 3 inside of it

	1	3	2	2	
1	4			3	2
3			4		2
3				4	1
2	3	4			3
	2	1	3	2	

b  
u  
f

x	x	x	x	x	x
x	x	x	x	x	x
x	x		4	x	x
x	x			x	x
x	x	x	x	x	x
x	x	x	x	x	x

check for only 1 space  
if only 1 space put 3 into matrix  
and x into buffer

	1	3	2	2	
1	4			3	2
3		3	4		2
3				4	1
2	3	4			3
	2	1	3	2	

	x	x	x	x	x	x
b	x	x	x	x	x	x
u	x	x	x	4	x	x
f	x	x			x	x
	x	x	x	x	x	x
	x	x	x	x	x	x

lock circle and rows and columns  
with 3 inside of it

	1	3	2	2	
1	4			3	2
3		3	4		2
3				4	1
2	3	4			3
	2	1	3	2	

	x	x	x	x	x	x
b	x	x	x	x	x	x
u	x	x	x	x	x	x
f	x	x	x		x	x
	x	x	x	x	x	x
	x	x	x	x	x	x

check for only 1 space  
if only 1 space put 3 into matrix  
and x into buffer

	1	3	2	2	
1	4			3	2
3		3	4		2
3			3	4	1
2	3	4			3
	2	1	3	2	

	x	x	x	x	x	x
b	x	x	x	x	x	x
u	x	x	x	x	x	x
f	x	x	x	x	x	x
	x	x	x	x	x	x
	x	x	x	x	x	x

3s and 4s done now

	1	3	2	2	
1	4			3	2
3		3	4		2
3			3	4	1
2	3	4			3
	2	1	3	2	

2s and 1s are missing

	1	3	2	2	
1	4			3	2
3		3	4		2
3	2	1	3	4	1
2	3	4			3
	2	1	3	2	

if there is a 3 and two spaces to 3  
then put 2 next to 3  
and 1 after that

3	2	1	3	4	1
---	---	---	---	---	---

	1	3	2	2	
1	4		2	3	2
3	1	3	4	2	2
3	2	1	3	4	1
2	3	4	1		3
	2	1	3	2	

else if there is a 3 and only one space  
to 3 then put a 1 next to 3  
and fill the last space with 2

3	1	3	4	2	2
---	---	---	---	---	---

	1	3	2	2	
1	4	1	2	3	2
3	1	3	4	2	2
3	2	1	3	4	1
2	3	4	1	1	3
	2	1	3	2	

1	4	1	2	3	2
---	---	---	---	---	---

if there is space add all all values  
put 10 - value into space

$4+2+3=9$   
 $10-9=1$