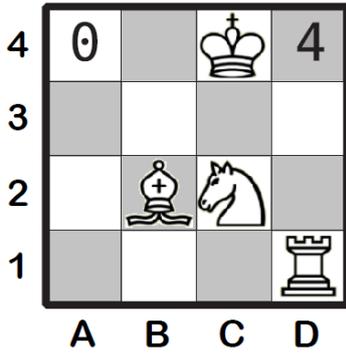
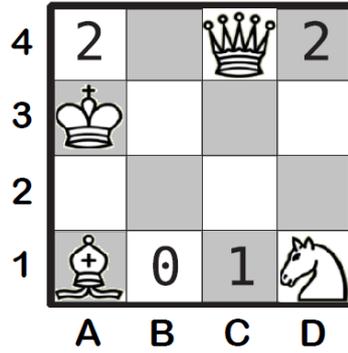


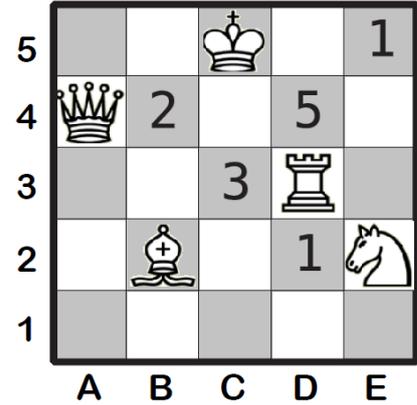
1 (Almost Chess)



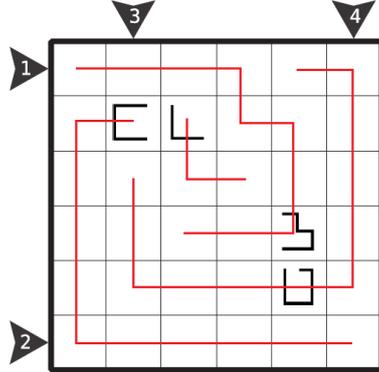
2 (Almost Chess)



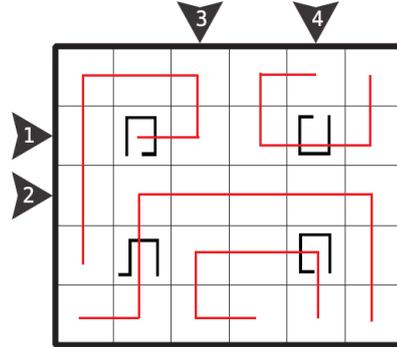
3 (Almost Chess)



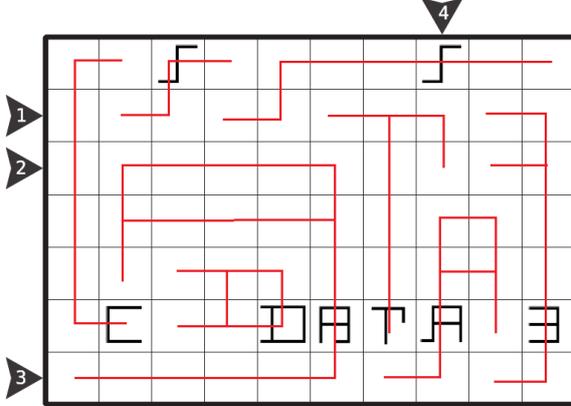
4 (Curve Data)



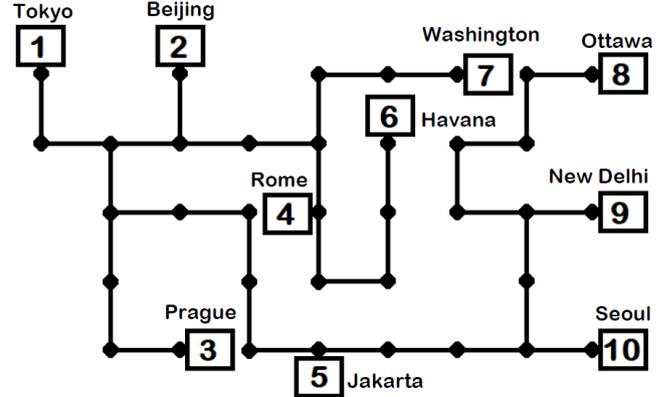
5 (Curve Data)



6 (Curve Data)



7 (Shortest Distances)



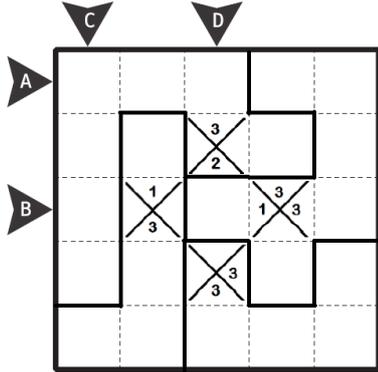
8 (Letter Weights)

A	I	K	L	N	O	P	R	W	Z
3	0	2	6	5	9	4	8	7	1

9 (Arithmetic Square)

$$\begin{array}{r}
 \boxed{4} \times \boxed{1} \times \boxed{5} = 20 \\
 + \quad + \quad + \\
 \boxed{7} + \boxed{2} - \boxed{8} = 1 \\
 - \quad - \quad + \\
 \boxed{9} / \boxed{3} + \boxed{6} = 9 \\
 = \quad = \quad = \\
 2 \quad 0 \quad 19
 \end{array}$$

10 (Compass)



12 (Scrabble)

S	I	R	P	T	T	S	E	T
I	I	U	S	E	O	L	A	R
M	P	A	R	M	A	P	M	I
P	P	P	P	P	P	P	P	P
L	L	L	L	L	L	L	L	L
E	E	E	E	E	E	E	E	E

14 (Letter Scrabble)

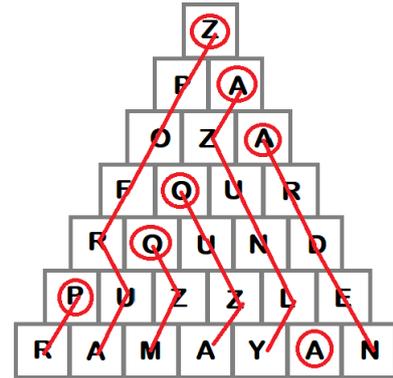
M			M			A	N	J	U		
A	N	J	A	L	I			W			
N		N			H	I	M	A			
I	D	U	T	E	E		L	S			
K			U	E		S	A	N	I	A	
A	M		L	N					N		
	D	I	P	I	K	A	M		D		
S	T	P			S	A	K	S	H	I	
A	S	H	A			R			U		
I	A			T	A	N	Y	A			
N	L							L			
A	M	I	T	A		S	M	R	I	T	I

16 (Meandering Words) 17 (Meandering Words)

G	E	L	O	G
L	O	W	M	R
R	E	F	L	O
O	L	G	A	W
W	E	W	O	M

A	R	A	R	P	R
W	U	N	O	E	A
S	P	I	H	R	S
M	A	T	A	O	A
I	R	H	N	H	N
T	A	K	I	S	A

11 (Pyramid Climbers)



13 (Letter Scrabble)

A	T			A	M	
	O	F		I	S	
		O	U	T		
	O	R		S	O	
I	N				H	E

15 (Meandering Words)

V	A	H	D	A
M	N	I	N	I
A	D	G	A	D
R	E	M	L	N
A	T	A	F	I

18 (Double Letter Scrabble)

P	A		H		B	
	L	O	O	P	Y	
S	P	O	O		L	
H		P	L	A	N	
E	S	S	A	Y		
D					S	O

19 (Double Letter Scrabble)

	K	U	W	A	I	T			
			E				B	U	G
	D	A	L	L	A	S			O
			L				A		D
	R	H	I	N	E		C	O	T
			N				C		H
			G		H		R		A
		O	T	T	A	W	A		A
			O		G				B
	C	A	N	B	E	R	R	A	
					N				

21 (Word Stairs)

	E	R	I	P	B
	D	K	N	U	L
	N	I	K	E	W
	K	A	C	I	H
	B	L	E	T	

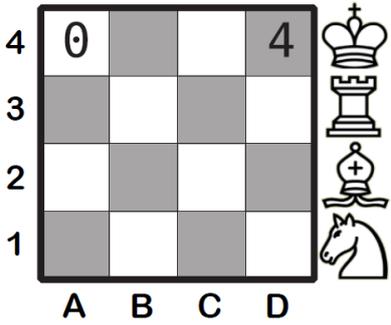
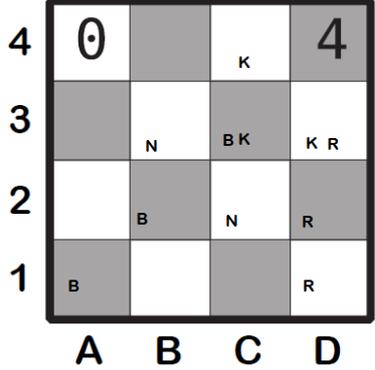
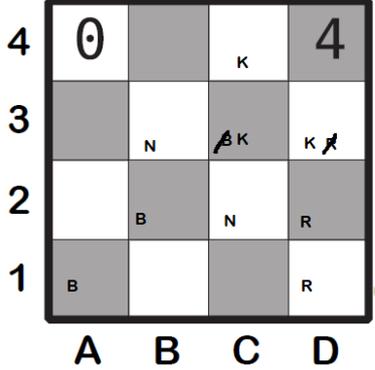
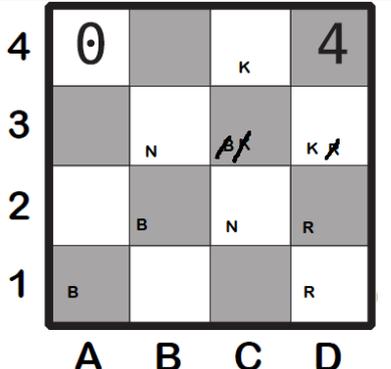
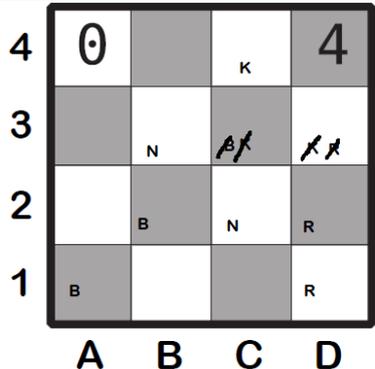
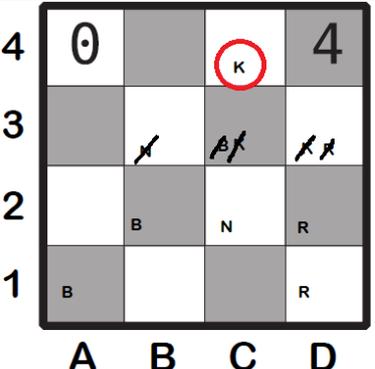
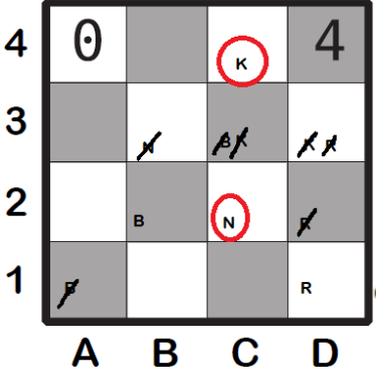
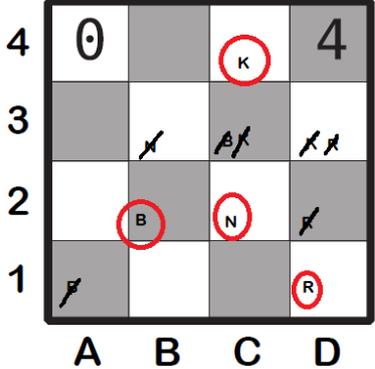
20 (Double Letter Scrabble)

	S	C	R	A	B	B	L	E		A
	T	O	E		A		A	G	E	D
	R	O		F	L	A	G	G	E	D
	A	L	L		L		G		L	I
	Y		O	R	E		A	D		C
		P	O	T	T	E	R	Y		T
	S	I	P	S			D	E	N	S

22 (Word Stairs)

	M	A			L	I		
	E	M	B		A	O	N	
	V	I	O	C	H	A	K	
	W	J	H	A	R	E		
	A	L	C		B		T	
		T	Z	I	N	P	A	G
			A	T			I	N
			L			S	W	

Almost Chess – 1 (Step wise solution)

<p style="text-align: center;">1 (2 points)</p> 	 <p style="text-align: center;">All the possible positions, considering that the pieces MUST attack D4 and MUST NOT attack A4.</p>	 <p style="text-align: center;">King cannot have any neighbours around it. So we eliminate other pieces from C3 and D3.</p>
 <p style="text-align: center;">K can be eliminated from C3 as it is in the line of Bishop.</p>	 <p style="text-align: center;">K can be eliminated from D3 as it is in the line of Rook.</p>	 <p style="text-align: center;">Only one place for King. Due to K, N eliminated from B3.</p>
 <p style="text-align: center;">Only one place for N. And this N eliminates B from A1 and R from D2.</p>	 <p style="text-align: center;">Only one place left for B and R.</p>	

Almost Chess – 2 (Step wise solution)

<p style="text-align: center;">2 (6 points)</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td></td><td></td><td>2</td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td>0</td><td>1</td><td></td><td></td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table>	4	2			2	3					2					1	0	1				A	B	C	D	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>^N K B</td><td>^N Q K B</td><td>2</td></tr> <tr><td>3</td><td>^B Q K</td><td>^N K B</td><td>^Q K B</td><td>^K N</td></tr> <tr><td>2</td><td>^N</td><td>^B N</td><td>^N</td><td>^Q B K</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>^K B N</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>All the possible positions, considering that the pieces MUST NOT attack B1.</p>	4	2	^N K B	^N Q K B	2	3	^B Q K	^N K B	^Q K B	^K N	2	^N	^B N	^N	^Q B K	1	^B N	0	1	^K B N		A	B	C	D	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>^N Q K B</td><td>2</td></tr> <tr><td>3</td><td>^B Q K</td><td>^N K B</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>^N</td><td>^B N</td><td>^N</td><td>^Q B K</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>^K B N</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>All the four positions of Queen attack B4 and D3. So no piece can come in these two cells.</p>	4	2	X	^N Q K B	2	3	^B Q K	^N K B	^Q K B	X	2	^N	^B N	^N	^Q B K	1	^B N	0	1	^K B N		A	B	C	D
4	2			2																																																																									
3																																																																													
2																																																																													
1	0	1																																																																											
	A	B	C	D																																																																									
4	2	^N K B	^N Q K B	2																																																																									
3	^B Q K	^N K B	^Q K B	^K N																																																																									
2	^N	^B N	^N	^Q B K																																																																									
1	^B N	0	1	^K B N																																																																									
	A	B	C	D																																																																									
4	2	X	^N Q K B	2																																																																									
3	^B Q K	^N K B	^Q K B	X																																																																									
2	^N	^B N	^N	^Q B K																																																																									
1	^B N	0	1	^K B N																																																																									
	A	B	C	D																																																																									
<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>^N Q K B</td><td>2</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>^N</td><td>X</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>X</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>All the four positions of Queen attack C1. So no other piece can attack C1. We eliminate all B, K and R which attack C1.</p>	4	2	X	^N Q K B	2	3	X	X	^Q K B	X	2	X	X	^N	X	1	^B N	0	1	X		A	B	C	D	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>X</td><td>2</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>X</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>N can be eliminated from B2, C2 and C4 because it with attacks a Queen or is attacked by a Queen.</p>	4	2	X	X	2	3	X	X	^Q K B	X	2	X	X	X	X	1	^B N	0	1	X		A	B	C	D	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>X</td><td>2</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>X</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>B can be eliminated from B3 (as K attacks it) and C3 (as Q attacks it)</p>	4	2	X	X	2	3	X	X	^Q K B	X	2	X	X	X	X	1	^B N	0	1	X		A	B	C	D
4	2	X	^N Q K B	2																																																																									
3	X	X	^Q K B	X																																																																									
2	X	X	^N	X																																																																									
1	^B N	0	1	X																																																																									
	A	B	C	D																																																																									
4	2	X	X	2																																																																									
3	X	X	^Q K B	X																																																																									
2	X	X	X	X																																																																									
1	^B N	0	1	X																																																																									
	A	B	C	D																																																																									
4	2	X	X	2																																																																									
3	X	X	^Q K B	X																																																																									
2	X	X	X	X																																																																									
1	^B N	0	1	X																																																																									
	A	B	C	D																																																																									
<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>X</td><td>2</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>X</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>It is clear that N will not attack A4 or D4. B has 3 places now. But if B is in C4, it does not attack A4 or D4. This means Both Q and K have to attack A4 as also D4. This is not possible. So B can be eliminated from C4.</p>	4	2	X	X	2	3	X	X	^Q K B	X	2	X	X	X	X	1	^B N	0	1	X		A	B	C	D	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>X</td><td>2</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>X</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>Since A1 and C1 not have one piece each (B or N), Q cannot attack these squares. So Q can be eliminated from A3 and D2.</p>	4	2	X	X	2	3	X	X	^Q K B	X	2	X	X	X	X	1	^B N	0	1	X		A	B	C	D	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr><td>4</td><td>2</td><td>X</td><td>X</td><td>2</td></tr> <tr><td>3</td><td>X</td><td>X</td><td>^Q K B</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>^B N</td><td>0</td><td>1</td><td>X</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>Q must come in C3 or C4. So K can be eliminated from C3, C4 and B3.</p>	4	2	X	X	2	3	X	X	^Q K B	X	2	X	X	X	X	1	^B N	0	1	X		A	B	C	D
4	2	X	X	2																																																																									
3	X	X	^Q K B	X																																																																									
2	X	X	X	X																																																																									
1	^B N	0	1	X																																																																									
	A	B	C	D																																																																									
4	2	X	X	2																																																																									
3	X	X	^Q K B	X																																																																									
2	X	X	X	X																																																																									
1	^B N	0	1	X																																																																									
	A	B	C	D																																																																									
4	2	X	X	2																																																																									
3	X	X	^Q K B	X																																																																									
2	X	X	X	X																																																																									
1	^B N	0	1	X																																																																									
	A	B	C	D																																																																									

<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>4</td><td>2</td><td>K</td><td>Q</td><td>2</td></tr> <tr><td>3</td><td>K</td><td>K</td><td>K</td><td>K</td></tr> <tr><td>2</td><td>K</td><td>K</td><td>K</td><td>K</td></tr> <tr><td>1</td><td>BN</td><td>0</td><td>1</td><td>KBN</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>Only one place for K and it leaves only one place for Q.</p>	4	2	K	Q	2	3	K	K	K	K	2	K	K	K	K	1	BN	0	1	K BN		A	B	C	D	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>4</td><td>2</td><td>K</td><td>Q</td><td>2</td></tr> <tr><td>3</td><td>K</td><td>K</td><td>K</td><td>K</td></tr> <tr><td>2</td><td>K</td><td>K</td><td>K</td><td>K</td></tr> <tr><td>1</td><td>B</td><td>0</td><td>1</td><td>N</td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr> </table> <p>Since D4 must have two attackers, A1 has to be B.</p>	4	2	K	Q	2	3	K	K	K	K	2	K	K	K	K	1	B	0	1	N		A	B	C	D
4	2	K	Q	2																																															
3	K	K	K	K																																															
2	K	K	K	K																																															
1	BN	0	1	K BN																																															
	A	B	C	D																																															
4	2	K	Q	2																																															
3	K	K	K	K																																															
2	K	K	K	K																																															
1	B	0	1	N																																															
	A	B	C	D																																															

Almost Chess – 3 (Step wise solution)

<p>3 (9 points)</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>5</td><td></td><td></td><td></td><td>1</td></tr> <tr><td>4</td><td>2</td><td></td><td>5</td><td></td></tr> <tr><td>3</td><td></td><td>3</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td>1</td><td></td></tr> <tr><td>1</td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr> </table>	5				1	4	2		5		3		3			2			1		1						A	B	C	D	E	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>5</td><td></td><td>N</td><td>QKB</td><td>K RQ</td><td>1</td></tr> <tr><td>4</td><td>QR</td><td>2</td><td>KRQ</td><td>5</td><td>KQR</td></tr> <tr><td>3</td><td></td><td>N</td><td>3</td><td>K RQ</td><td>QKB</td></tr> <tr><td>2</td><td></td><td>BQ</td><td>N</td><td>1</td><td>N</td></tr> <tr><td>1</td><td>BQ</td><td></td><td></td><td>RQ</td><td></td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr> </table> <p>All possible positions, considering that the pieces MUST attack D4.</p>	5		N	Q KB	K RQ	1	4	Q R	2	K R Q	5	K Q R	3		N	3	K RQ	Q KB	2		B Q	N	1	N	1	B Q			RQ			A	B	C	D	E	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>5</td><td></td><td>N</td><td>QKB</td><td>K RQ</td><td>1</td></tr> <tr><td>4</td><td>QR</td><td>2</td><td>KRQ</td><td>5</td><td>KQR</td></tr> <tr><td>3</td><td></td><td>N</td><td>3</td><td>K RQ</td><td>QKB</td></tr> <tr><td>2</td><td></td><td>BQ</td><td>N</td><td>1</td><td>N</td></tr> <tr><td>1</td><td>BQ</td><td></td><td></td><td>RQ</td><td></td></tr> <tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td></tr> </table> <p>Q is removed from B2, C4, D3 as it attacks all possible positions of N.</p>	5		N	Q KB	K RQ	1	4	Q R	2	K R Q	5	K Q R	3		N	3	K RQ	Q KB	2		B Q	N	1	N	1	B Q			RQ			A	B	C	D	E					
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Solutions

<p style="text-align: center; margin-top: 5px;">A B C D E</p> <p>The 2 in B4 must be attacked by one piece in 2nd row (R or Q) and one piece in C5 (K or B). So we can eliminate K in 2nd row and other pieces which attack C5.</p>	<p style="text-align: center; margin-top: 5px;">A B C D E</p> <p>Only three places for R now. D3, D5 and E4. This means K in D3 can be eliminated.</p>	<p style="text-align: center; margin-top: 5px;">A B C D E</p> <p>Only two places for K. So B can be eliminated from C5. This means B is in B2.</p>
<p style="text-align: center; margin-top: 5px;">A B C D E</p> <p>Q can be eliminated from A1. Since the E5 square is attacked by B, we can eliminate R from D5, E4. So R is in D3.</p>	<p style="text-align: center; margin-top: 5px;">A B C D E</p> <p>Only one place for K, and the rest can be completed.</p>	