

Puzzle - H1	Iterations/nodes	# of Moves		H2	Iterations/nodes	# of Moves		H3	Iterations/nodes	# of Moves
[1, 6, 2, 4, 10, 3, 11, 7, 13, 5, 9, 8, 14, 15, 0, 12]	216	17			35	17			33	17
[3, 5, 6, 4, 9, 1, 2, 7, 10, 0, 11, 8, 13, 14, 15, 12]	168	15			28	15			34	15
[5, 3, 0, 4, 10, 1, 8, 12, 6, 7, 11, 13, 9, 2, 14, 15]	49369	26			638	26			1201	26
[1, 2, 3, 4, 10, 9, 6, 7, 5, 14, 11, 8, 13, 15, 12, 0]	25	12			18	12			16	12
[1, 2, 4, 6, 5, 10, 12, 3, 14, 13, 8, 0, 9, 15, 11, 7]	47855	25			654	25			2430	25
[7, 5, 2, 4, 0, 1, 3, 8, 13, 6, 11, 12, 10, 9, 14, 15]	384	17			69	17			65	17
[1, 2, 4, 12, 6, 9, 3, 7, 13, 5, 14, 0, 11, 10, 15, 8]	108203	27			396	27			3748	27
[2, 4, 8, 11, 1, 5, 3, 12, 9, 6, 15, 0, 13, 14, 10, 7]	15185	23			407	23			627	23
[1, 3, 8, 7, 6, 2, 10, 4, 5, 9, 15, 11, 13, 14, 0, 12]	87	15			57	15			26	15
[1, 2, 4, 8, 6, 11, 10, 12, 5, 14, 13, 7, 9, 0, 3, 15]	7663	22			1161	24			256	22
[2, 6, 5, 4, 9, 0, 1, 3, 13, 10, 7, 8, 14, 11, 15, 12]	7621	22			55	24			667	22
[1, 2, 8, 3, 5, 10, 6, 4, 0, 14, 7, 12, 9, 13, 11, 15]	26	12			15	12			15	12
[0, 1, 2, 14, 5, 8, 10, 4, 6, 9, 3, 11, 13, 15, 7, 12]	1000001	too long><			5108	34			35967	32
[1, 2, 8, 3, 5, 10, 4, 7, 15, 13, 14, 6, 0, 9, 12, 11]	25491	25			456	25			1099	25
[6, 2, 3, 4, 1, 10, 7, 0, 5, 9, 12, 8, 13, 11, 15, 14]	48407	24			3355	28			5519	24
[1, 2, 8, 3, 9, 0, 15, 6, 14, 5, 4, 11, 13, 10, 7, 12]	1000001	too long><			11739	36			104148	32
[10, 4, 0, 7, 1, 5, 11, 15, 6, 3, 8, 2, 13, 9, 14, 12]	1000001	too long><			2116	34			42240	34
[0, 2, 3, 4, 1, 5, 7, 8, 9, 6, 10, 11, 13, 14, 15, 12]	6	6			6	6			6	6
[2, 10, 3, 4, 0, 5, 7, 8, 1, 9, 13, 12, 14, 6, 11, 15]	14523	23			163	23			1729	23
[0, 1, 15, 3, 5, 2, 6, 7, 13, 10, 4, 8, 14, 9, 12, 11]	57567	26			286	26			1929	26
[1, 2, 3, 4, 9, 6, 8, 5, 13, 10, 12, 7, 14, 15, 0, 11]	10289	21			1110	23			1018	21
[5, 1, 2, 8, 10, 6, 4, 3, 11, 7, 14, 12, 0, 9, 13, 15]	890	21			48	21			60	21
[2, 5, 3, 4, 13, 0, 6, 8, 9, 1, 14, 11, 10, 15, 7, 12]	26485	24			81	24			1959	24
[6, 0, 2, 4, 1, 3, 7, 8, 5, 9, 10, 12, 13, 14, 11, 15]	100	13			23	13			43	13
[2, 6, 3, 4, 1, 13, 11, 7, 5, 0, 10, 8, 14, 9, 15, 12]	104	15			33	15			27	15
[5, 1, 3, 4, 9, 2, 6, 7, 10, 14, 15, 8, 13, 0, 12, 11]	66	14			14	14			14	14
[1, 2, 7, 3, 5, 11, 4, 15, 9, 6, 12, 0, 13, 10, 14, 8]	894	17			49	17			93	17
[5, 1, 7, 6, 3, 2, 0, 4, 9, 14, 11, 12, 13, 15, 8, 10]	126774	27			405	27			5964	27
[2, 3, 4, 8, 13, 1, 7, 5, 0, 9, 6, 12, 10, 14, 11, 15]	21686	24			374	28			1011	24
[5, 1, 2, 3, 6, 7, 11, 4, 9, 0, 10, 8, 13, 14, 15, 12]	11	11			11	11			11	11
[1, 6, 2, 3, 5, 0, 4, 8, 9, 7, 11, 12, 13, 10, 14, 15]	202	14			58	14			96	14
[14, 6, 0, 4, 2, 3, 13, 11, 5, 8, 15, 7, 9, 1, 10, 12]	1000001	too long><			3820	42			220077	38
[3, 5, 6, 4, 1, 2, 11, 7, 9, 14, 0, 8, 13, 15, 10, 12]	711	18			70	18			116	18
[1, 2, 3, 4, 9, 10, 5, 7, 6, 14, 11, 8, 13, 0, 15, 12]	178	14			44	14			86	14
[3, 2, 4, 8, 1, 13, 7, 12, 5, 0, 10, 15, 11, 9, 6, 14]	112841	27			1961	31			1861	27
[5, 1, 2, 4, 9, 10, 3, 8, 0, 14, 6, 11, 13, 15, 7, 12]	52	14			16	14			16	14
[1, 2, 10, 0, 5, 6, 7, 3, 13, 9, 12, 4, 14, 15, 8, 11]	32636	25			218	25			3236	25
[9, 2, 8, 7, 5, 10, 1, 3, 6, 4, 11, 12, 13, 14, 15, 0]	1000001	too long><			1762	32			75882	32
[1, 2, 7, 3, 5, 6, 4, 8, 10, 11, 12, 15, 9, 13, 14, 0]	82	14			22	16			35	14
[1, 3, 7, 0, 5, 2, 8, 4, 9, 6, 11, 12, 13, 10, 14, 15]	9	9			9	9			9	9
[1, 6, 2, 7, 5, 10, 8, 11, 9, 3, 4, 12, 13, 14, 15, 0]	918	18			24	18			161	18
[1, 3, 7, 4, 5, 0, 2, 8, 14, 6, 11, 12, 9, 10, 13, 15]	387	16			57	16			145	16
[0, 1, 7, 4, 2, 3, 12, 8, 6, 9, 14, 15, 5, 13, 10, 11]	3723	22			92	22			191	22
[1, 7, 2, 4, 10, 3, 8, 12, 6, 9, 13, 11, 5, 0, 14, 15]	6697	22			748	22			377	22
[1, 2, 3, 4, 9, 5, 7, 8, 0, 6, 10, 12, 13, 14, 11, 15]	6	6			6	6			6	6
[1, 2, 4, 7, 6, 9, 3, 0, 10, 5, 15, 8, 14, 13, 12, 11]	60034	26			898	26			6214	26
[3, 2, 4, 8, 0, 1, 6, 12, 5, 9, 11, 7, 13, 10, 14, 15]	928	19			396	19			203	19
[1, 2, 3, 4, 0, 7, 14, 8, 11, 6, 5, 12, 9, 13, 10, 15]	2550	19			256	19			233	19
[1, 2, 7, 3, 9, 5, 6, 4, 14, 13, 11, 8, 0, 10, 15, 12]	29	13			44	13			21	13
[2, 9, 4, 8, 6, 1, 15, 10, 13, 7, 5, 3, 0, 14, 12, 11]	196139	29			118	31			1418	29
[1, 2, 3, 4, 0, 11, 7, 9, 5, 6, 12, 8, 13, 10, 14, 15]	7397	21			586	21			987	21
[0, 1, 6, 4, 5, 3, 2, 12, 9, 10, 8, 7, 13, 14, 11, 15]	96	14			21	14			50	14
[1, 2, 3, 4, 5, 6, 8, 12, 9, 13, 7, 15, 14, 10, 11, 0]	632	16			165	18			208	16
[5, 1, 2, 3, 9, 10, 6, 4, 13, 14, 12, 8, 11, 7, 0, 15]	466	19			454	19			25	19
[1, 3, 5, 4, 9, 10, 2, 8, 13, 6, 11, 12, 0, 14, 15, 7]	26340	23			1527	25			2909	23
[6, 1, 2, 4, 5, 9, 3, 7, 15, 11, 0, 12, 13, 10, 8, 14]	28745	24			199	28			1472	24
[1, 2, 4, 7, 6, 10, 9, 0, 5, 12, 8, 3, 13, 14, 11, 15]	2956	20			38	20			197	20
[1, 3, 4, 8, 6, 10, 2, 11, 5, 13, 7, 15, 9, 0, 14, 12]	198	18			193	18			46	18
[2, 3, 7, 4, 1, 6, 10, 8, 0, 5, 9, 11, 13, 14, 15, 12]	21	12			14	12			14	12
[1, 2, 3, 4, 6, 8, 11, 7, 9, 13, 14, 12, 0, 10, 5, 15]	57902	25			1337	25			6523	25
[1, 6, 2, 4, 13, 5, 3, 11, 0, 14, 8, 7, 15, 9, 10, 12]	5085	22			99	22			387	22
[2, 6, 4, 8, 1, 7, 3, 0, 5, 14, 10, 12, 9, 13, 11, 15]	14	14			14	14			14	14
[1, 2, 3, 4, 9, 5, 7, 8, 0, 6, 11, 12, 13, 10, 14, 15]	6	6			6	6			6	6
[6, 1, 8, 7, 3, 0, 2, 11, 5, 9, 12, 4, 13, 10, 14, 15]	3417	22			199	24			172	22
[1, 2, 7, 3, 10, 0, 6, 4, 5, 9, 14, 8, 13, 15, 11, 12]	76	14			76	14			27	14
[1, 2, 3, 4, 5, 6, 15, 8, 9, 10, 12, 0, 13, 14, 7, 11]	318	13			83	13			105	13
[1, 2, 8, 0, 9, 6, 4, 3, 7, 5, 15, 11, 10, 13, 14, 12]	1970	21			59	21			165	21
[1, 2, 3, 4, 5, 10, 7, 12, 13, 11, 15, 0, 14, 9, 6, 8]	10739	21			609	25			1133	21
[1, 2, 3, 0, 5, 6, 7, 4, 9, 10, 12, 8, 13, 14, 11, 15]	5	5			5	5			5	5
[1, 3, 0, 12, 7, 4, 8, 10, 6, 2, 15, 11, 5, 9, 13, 14]	1000001	too long><			27399	40			11460	32
[1, 0, 3, 4, 5, 2, 6, 8, 9, 11, 7, 12, 13, 15, 10, 14]	587	15			86	15			182	15
[2, 5, 3, 8, 6, 0, 4, 10, 1, 9, 12, 7, 13, 14, 11, 15]	7106	22			545	24			498	22
[5, 6, 2, 4, 3, 0, 8, 11, 10, 1, 15, 7, 9, 13, 14, 12]	15959	24			102	24			1415	24
[9, 5, 3, 4, 13, 1, 11, 7, 14, 2, 10, 8, 6, 0, 15, 12]	1355	20			63	20			43	20
[5, 4, 3, 8, 9, 2, 0, 11, 13, 6, 15, 7, 10, 1, 14, 12]	112278	27			1004	27			3430	27
[1, 2, 4, 8, 5, 6, 3, 15, 13, 10, 7, 0, 14, 9, 12, 11]	392	17			32	17			119	17
[1, 10, 2, 3, 5, 7, 8, 4, 9, 0, 6, 12, 13, 14, 11, 15]	83	13			38	13			30	13
[2, 6, 3, 4, 1, 7, 11, 9, 5, 0, 13, 8, 14, 15, 10, 12]	4018	21			519	21			227	21
[1, 2, 4, 8, 5, 3, 12, 0, 10, 6, 7, 15, 9, 13, 14, 11]	186	16			138	16			35	16

[3, 0, 7, 6, 1, 9, 2, 4, 5, 8, 10, 15, 13, 14, 11, 12]	1000001	too long><		48512	39		533629	35
[5, 3, 0, 4, 2, 1, 6, 8, 9, 10, 7, 12, 13, 14, 11, 15]	22	10		15	10		14	10
[1, 2, 8, 3, 5, 6, 11, 7, 13, 14, 0, 12, 10, 4, 9, 15]	129907	26		392	26		6007	26
[5, 2, 4, 8, 6, 1, 3, 11, 9, 10, 7, 12, 13, 14, 0, 15]	176	15		36	15		46	15
[5, 1, 6, 4, 0, 3, 11, 7, 9, 2, 8, 12, 13, 14, 15, 10]	9685	21		878	23		707	21
[0, 5, 1, 4, 9, 6, 11, 7, 2, 10, 3, 15, 13, 14, 12, 8]	201350	28		663	28		7284	28
[1, 3, 4, 7, 13, 5, 2, 6, 0, 11, 9, 8, 10, 14, 12, 15]	16851	24		309	24		598	24
[1, 2, 3, 4, 6, 10, 9, 8, 5, 14, 7, 15, 0, 13, 12, 11]	786	17		29	17		130	17
[1, 2, 3, 4, 10, 6, 8, 12, 5, 14, 0, 11, 13, 7, 15, 9]	24911	22		1226	24		1781	22
[2, 3, 4, 0, 1, 5, 6, 8, 9, 10, 7, 12, 13, 14, 11, 15]	9	9		9	9		9	9
[0, 1, 2, 8, 5, 10, 6, 3, 9, 7, 12, 4, 13, 14, 11, 15]	202	16		35	16		45	16
[1, 0, 6, 4, 9, 5, 2, 3, 13, 11, 15, 7, 14, 10, 12, 8]	427	19		19	19		31	19
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 11, 13, 0, 14, 12]	4	4		4	4		4	4
[1, 2, 3, 4, 5, 6, 8, 7, 9, 10, 15, 11, 0, 14, 13, 12]	112553	25		9643	25		19839	25
[1, 0, 2, 4, 5, 10, 3, 12, 9, 7, 8, 15, 13, 14, 6, 11]	317	15		28	15		32	15
[1, 2, 3, 4, 0, 5, 6, 8, 14, 10, 13, 12, 9, 11, 7, 15]	332	15		39	15		44	15
[1, 3, 4, 7, 14, 2, 10, 0, 6, 13, 8, 11, 5, 9, 15, 12]	15192	24		376	28		501	24
[6, 5, 2, 0, 9, 1, 3, 4, 7, 10, 8, 12, 13, 14, 11, 15]	125096	27		1699	31		11343	27
[2, 10, 3, 4, 1, 6, 12, 7, 5, 14, 15, 11, 9, 13, 8, 0]	3788	22		104	24		545	22
[1, 8, 3, 2, 5, 10, 7, 0, 14, 6, 4, 12, 9, 13, 11, 15]	1000001	too long><		9762	34		45666	30
[1, 10, 2, 4, 9, 8, 0, 12, 5, 3, 6, 15, 13, 7, 11, 14]	1000001	too long><		13714	31		72124	31
Total runtime of all 100 puzzles was 591.18 seconds			Total runtime of all 100 puzzles was 53.398 seconds			Total runtime of all 100 puzzles was 401.616 seconds		
Please refer to old tables for average runtimes								