HW3. N queens problem

id	check	l_refs	cpu_time	m_peak	lost	m.e.	gcc	i.f.	i.h.	lang	flt	maxrss	?	priority	diversity	func	p_score	score	submission_time
109550098	1.00	748.81 M	200 ms	19.69 MB	0 B	0	0	0	0	cpp_shm	399	3.28 MB	0	1.091	1.17	1.000	89	97	11/13 23:16:05
109550074	1.00	1.16 G	830 ms	19.69 MB	0 B	0	0	0	0	cpp_shm	387	3.37 MB	0	1.067	1.17	1.000	87	96	11/13 17:45:39
109550206	1.00	1.28 G	870 ms	19.69 MB	0 B	0	0	0	0	cpp_shm	395	3.36 MB	0	1.062	1.17	1.000	87	96	11/12 02:14:13
109550094	1.00	3.23 G	1 s	19.88 MB	0 B	0	0	0	0	cpp_shm	397	3.56 MB	0	1.014	1.17	1.000	83	94	11/13 17:28:07
110550023	1.00	4.61 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	392	3.36 MB	0	1.001	1.17	1.000	82	94	11/10 22:04:50
109550182	1.00	4.42 G	2 s	19.69 MB	0 B	0	0	0	0	cpp_shm	398	3.49 MB	0	1.000	1.17	1.000	82	94	11/13 20:43:59
109550018	1.00	4.64 G	2 s	19.69 MB	0 B	0	0	0	0	cpp_shm	395	3.48 MB	0	0.999	1.17	1.000	81	94	11/13 20:39:38
0713339	1.00	3.28 G	1 s	15.46 MB	0 B	0	0	0	0	cpp	382	3.11 MB	0	1.022	0.37	1.000	83	94	11/9 18:50:19
109550053	1.00	5.21 G	1 s	19.69 MB	0 B	0	0	0	0	cpp_shm	400	3.48 MB	0	0.993	1.17	1.000	81	94	11/13 12:17:09
109550134	1.00	5.4 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	404	3.36 MB	0	0.993	1.17	1.000	81	94	11/13 21:36:55
109550068	1.00	5.89 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	399	3.35 MB	0	0.989	1.17	1.000	81	93	11/9 13:05:13
0816138	1.00	3.93 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	389	3.32 MB	0	1.013	0.37	1.000	83	93	11/13 22:30:12
0712254	1.00	6.16 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	395	3.36 MB	0	0.988	1.17	1.000	81	93	10/24 18:37:53
0712211	1.00	5.94 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	396	3.47 MB	0	0.988	1.17	1.000	81	93	10/23 15:22:43
109550133	1.00	4.16 G	2 s	15.5 MB	0 B	0	0	0	0	cpp	400	3.34 MB	0	1.011	0.37	1.000	82	93	10/24 00:21:02
109550006	1.00	4.24 G	2 s	15.46 MB	0 B	0	0	0	0	cpp	385	3.25 MB	0	1.010	0.37	1.000	82	93	11/13 21:46:14

109550178	1.00	7.63 G	4 s	19.69 MB	0 B	0	0	0	0	cpp_shm	392	3.38 MB	0	0.979	1.17	1.000	80	93	11/13 16:29:58
baseline	1.00	5.3 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	382	3.09 MB	0	1.000	0.37	1.000	82	93	11/3 07:20:29
610001005	1.00	8.49 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	394	3.35 MB	0	0.974	1.17	1.000	79	93	11/10 00:18:03
109550096	1.00	5.76 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	385	3.13 MB	0	0.996	0.37	1.000	81	93	11/13 15:30:49
0812236	1.00	9.12 G	3 s	19.7 MB	0 B	0	0	0	0	cpp_shm	399	3.33 MB	0	0.971	1.17	1.000	79	93	11/13 20:13:34
109550022	1.00	6.08 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	391	3.37 MB	0	0.994	0.37	1.000	81	93	11/12 13:21:57
109550174	1.00	6.27 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	381	3.33 MB	0	0.993	0.37	1.000	81	93	11/12 10:20:58
109550076	1.00	6.28 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	387	3.26 MB	0	0.992	0.37	1.000	81	93	10/31 23:02:12
109550052	1.00	6.34 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	386	3.29 MB	0	0.992	0.37	1.000	81	93	11/10 08:44:30
109550146	1.00	6.42 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	383	3.24 MB	0	0.992	0.37	1.000	81	93	11/12 12:53:45
109550130	1.00	6.66 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	384	3.09 MB	0	0.990	0.37	1.000	81	93	11/11 22:31:55
109550026	1.00	9.73 G	4 s	19.7 MB	0 B	0	0	0	0	cpp_shm	407	3.54 MB	0	0.965	1.17	1.000	79	93	11/13 23:58:59
109550150	1.00	7.02 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	381	3.13 MB	0	0.988	0.37	1.000	81	93	11/11 19:10:32
109550070	1.00	7.22 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	392	3.31 MB	0	0.986	0.37	1.000	80	93	11/12 00:17:50
109550056	1.00	7.27 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	390	3.29 MB	0	0.986	0.37	1.000	80	93	11/12 19:46:57
109550156	1.00	7.36 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	389	3.25 MB	0	0.986	0.37	1.000	80	93	11/9 18:30:57
109550110	1.00	7.39 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	382	3.16 MB	0	0.985	0.37	1.000	80	93	11/12 18:35:42
109550086	1.00	7.52 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	386	3.16 MB	0	0.985	0.37	1.000	80	92	11/9 23:14:55
109550160	1.00	7.71 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	386	3.16 MB	0	0.984	0.37	1.000	80	92	11/13 20:21:58

109550088	1.00	7.83 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	382	3.3 MB	0	0.983	0.37	1.000	80	92	11/12 19:47:26
109550184	1.00	11.4 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	401	3.61 MB	0	0.958	1.17	1.000	78	92	10/28 04:57:55
109550020	1.00	8.1 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	405	3.33 MB	0	0.981	0.37	1.000	80	92	11/12 14:11:48
0711624	1.00	13.23 G	4 s	19.69 MB	0 B	0	0	0	0	cpp_shm	398	3.32 MB	0	0.956	1.17	1.000	78	92	11/13 16:15:18
109550046	1.00	8.36 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	386	3.12 MB	0	0.980	0.37	1.000	80	92	11/12 20:07:26
109550128	1.00	8.43 G	3 s	15.47 MB	0 B	0	0	0	0	cpp	387	3.29 MB	0	0.980	0.37	1.000	80	92	10/22 14:12:07
109652026	1.00	8.44 G	2 s	15.46 MB	0 B	0	0	0	0	cpp	384	3.32 MB	0	0.980	0.37	1.000	80	92	11/10 23:17:20
109550126	1.00	8.46 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	385	3.29 MB	0	0.980	0.37	1.000	80	92	10/31 23:59:44
109550168	1.00	8.6 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	381	3.09 MB	0	0.979	0.37	1.000	80	92	11/1 00:02:56
109550090	1.00	8.79 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	387	3.16 MB	0	0.978	0.37	1.000	80	92	11/11 22:26:13
109550164	1.00	8.95 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	377	3.12 MB	0	0.977	0.37	1.000	80	92	11/11 23:17:40
109550002	1.00	9.06 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	387	3.3 MB	0	0.977	0.37	1.000	80	92	11/10 22:12:41
0717030	1.00	15.43 G	4 s	19.69 MB	0 B	0	0	0	0	cpp_shm	394	3.52 MB	0	0.947	1.17	1.000	77	92	11/13 15:29:38
109550044	1.00	16.84 G	4 s	19.69 MB	0 B	0	0	0	0	cpp_shm	396	3.35 MB	0	0.946	1.17	1.000	77	92	10/30 16:42:04
0816068	1.00	10.99 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	383	3.28 MB	0	0.969	0.37	1.000	79	92	11/13 04:27:23
109550071	1.00	11.69 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	386	3.31 MB	0	0.966	0.37	1.000	79	92	11/13 12:00:32
0710028	1.00	15.15 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	389	3.32 MB	0	0.955	0.37	1.000	78	92	11/13 18:35:17
109550066	1.00	24.56 G	4 s	19.7 MB	0 B	0	0	0	0	cpp_shm	398	3.37 MB	0	0.931	1.17	1.000	76	92	11/7 19:26:19
109700045	1.00	17.37 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	387	3.31 MB	0	0.950	0.37	1.000	77	91	11/13 18:22:59

109652053	1.00	19.98 G	3 s	15.46 MB	0 B	0	0	0	0	cpp	385	3.09 MB	0	0.944	0.37	1.000	77	91	11/13 03:09:29
109550082	1.00	24.21 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	381	3.09 MB	0	0.937	0.37	1.000	76	91	11/13 23:58:42
109550038	1.00	24.21 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	390	3.3 MB	0	0.937	0.37	1.000	76	91	11/12 17:37:42
109550054	1.00	24.21 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	387	3.22 MB	0	0.937	0.37	1.000	76	91	11/13 23:51:34
109550124	1.00	24.21 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	383	3.11 MB	0	0.937	0.37	1.000	76	91	11/13 23:41:09
109550058	1.00	40.79 G	8 s	19.69 MB	0 B	0	0	0	0	cpp_shm	405	3.49 MB	0	0.909	1.17	1.000	74	91	11/9 10:53:47
0811619	1.00	38.07 G	7 s	15.46 MB	0 B	0	0	0	0	cpp	384	3.3 MB	0	0.919	0.37	1.000	75	90	11/13 16:22:55
0813463	1.00	58.94 G	8 s	15.46 MB	0 B	0	0	0	0	cpp	387	3.11 MB	0	0.903	0.37	1.000	74	90	11/9 02:26:21
109652042	1.00	64.13 G	10 s	15.46 MB	0 B	0	0	0	0	cpp	388	3.12 MB	0	0.900	0.37	1.000	73	90	11/13 12:23:35
109550085	1.00	77.95 G	13 s	15.46 MB	0 B	0	0	0	0	cpp	391	3.33 MB	0	0.893	0.37	1.000	73	90	10/27 21:28:57
M093638	1.00	78.4 G	25 s	15.6 MB	0 B	0	0	0	0	cpp	397	3.41 MB	0	0.892	0.37	1.000	73	89	11/5 10:46:23
109550142	1.00	129.63 G	19 s	15.46 MB	0 B	0	0	0	0	cpp	390	3.14 MB	0	0.875	0.37	1.000	71	89	11/13 01:46:13
109550132	1.00	130.59 G	23 s	15.46 MB	0 B	0	0	0	0	cpp	389	3.31 MB	0	0.875	0.37	1.000	71	89	11/13 23:03:04
0812249	1.00	231.76 G	33 s	19.82 MB	0 B	0	0	0	0	cpp_shm	415	3.42 MB	0	0.849	1.17	1.000	69	89	11/13 20:36:40
109550118	1.00	200.51 G	29 s	15.46 MB	0 B	0	0	0	0	cpp	392	3.26 MB	0	0.861	0.37	1.000	70	88	11/13 10:59:14
109550049	1.00	244.08 G	26 s	15.46 MB	0 B	0	0	0	0	cpp	381	3.13 MB	0	0.854	0.37	1.000	70	88	11/11 19:49:27
109652017	1.00	264.59 G	46 s	15.59 MB	0 B	0	0	0	0	cpp	393	3.2 MB	0	0.851	0.37	1.000	69	88	10/31 14:46:21
109550100	1.00	278.86 G	38 s	15.45 MB	0 B	0	0	0	0	cpp	386	3.21 MB	0	0.850	0.37	1.000	69	88	11/10 16:59:33
0816077	1.00	295.98 G	1 m	15.46 MB	0 B	0	0	0	0	cpp	390	3.31 MB	0	0.848	0.37	1.000	69	88	10/25 22:40:50

0812102	1.00	419.27 G	1 m	15.46 MB	0 B	0	0	0	0	cpp	389	3.17 MB	0	0.837	0.37	1.000	68	88	11/11 17:09:03
0816078	1.00	493.72 G	1 m	15.46 MB	0 B	0	0	0	0	cpp	388	3.32 MB	0	0.832	0.37	1.000	68	88	11/13 23:56:38
109550162	1.00	932.34 G	2 m	19.7 MB	0 B	0	0	0	0	cpp_shm	399	3.56 MB	0	0.806	1.17	1.000	66	87	11/12 20:05:15
0816003	1.00	563.66 G	1 m	15.8 MB	0 B	0	0	0	0	cpp	1.42 K	3.41 MB	0	0.827	0.37	1.000	67	87	11/12 23:29:17
109550001	1.00	3.28 G	1 s	15.46 MB	0 B	0	0	0	0	cpp	380	3.11 MB	0	0	0.00	1.000	0	55	12/4 17:10:25
109550016	1.00	9.74 G	3 s	19.69 MB	0 B	0	0	0	0	cpp_shm	410	3.44 MB	0	0	0.00	1.000	0	55	12/8 23:40:51
109550106	1.00	30.45 G	8 s	15.46 MB	0 B	0	0	0	0	cpp	389	3.18 MB	0	0	0.00	1.000	0	55	11/19 15:37:00
109550154	1.00	43.62 G	6 s	15.46 MB	0 B	0	0	0	0	cpp	390	3.27 MB	0	0	0.00	1.000	0	55	11/20 01:53:24
109550158	1.00	24.21 G	4 s	15.46 MB	0 B	0	0	0	0	cpp	385	3.33 MB	0	0	0.00	1.000	0	55	11/14 00:11:42
610001007	1.00	9.15 G	3 s	15.45 MB	0 B	0	0	0	0	cpp	380	3.04 MB	0	0	0.00	1.000	0	55	11/22 21:45:30
0816074	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	12	0	0.00	0.000	0	0	11/28 21:28:12
0816079	0.00	3.45 M	10 ms	15.46 MB	0 B	0	0	0	0	cpp	385	3.31 MB	0	0	0.00	0.000	0	0	12/11 11:42:12
0817001	1.00	156.58 G	27 s	15.47 MB	0 B	72	0	0	0	cpp	383	3.09 MB	0	0	0.00	0.025	0	0	11/15 16:33:27
109101012	0.80	24.55 G	12 s	15.46 MB	0 B	1339400	0	0	0	cpp	385	3.13 MB	0	0	0.00	0.000	0	0	12/16 01:13:30
309551149	0.00	0	10 ms	19.65 MB	0 B	0	0	0	0	cpp_shm	401	3.45 MB	0	0	0.00	0.000	0	0	12/20 13:40:59

number of submission = 88

number of effective submission (priority>0) = 77

remaining p_score = 0.00

Field Definitions

```
if (gcc | illegal_func | illegal_header | missing),
    priority = 0
    func = 0
else,
    func = check * (0.95^m_error)
    if ( check==1 ),
        perf_I1 = lg(2+5692296949)/lg(2+I_refs)
        perf_I2 = lg(2+2600000)/lg(2+cpu_time) )
        perf_I = (perf_I1>0) ? perf_I1 : perf_I2
        priority = perf_I * max( lg(2+16207872)/lg(2+m_peak) , lg(2+382*3244032)/lg(2+flt*maxrss) )
    else,
        priority = 0

p_score = schedule(6000, priority)

if (m_peak > 0),
    func *= (m_peak-heap_lost)/m_peak

diversity = -ln( [number of effective submissions using the same language] / [number of effective submissions] ) * 1.00

score = min( func*(0.60*100 + 0.40*p_score + diversity), 100)
```