HW5. Simple Chain

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
109550074	1.00	5.73 M	10 ms	28.46 MB	0 B	0	0	0	0	cpp_shm	411	6.13 MB	0	1.366	0.01	1.000	96	98	12/14 01:49:05
109550206	1.00	4.27 M	10 ms	33.84 MB	0 B	0	0	0	0	cpp_shm	727	5.36 MB	0	1.364	0.01	1.000	96	98	12/14 02:29:55
109550094	1.00	5.77 M	10 ms	23.46 MB	0 B	0	0	0	0	cpp_shm	540	5.18 MB	0	1.359	0.01	1.000	95	98	12/13 21:44:45
109550098	1.00	6.13 M	10 ms	24.14 MB	0 B	0	0	0	0	cpp_shm	590	5.44 MB	0	1.345	0.01	1.000	95	98	12/8 14:13:11
109550068	1.00	9.47 M	10 ms	24.8 MB	0 B	0	0	0	0	cpp_shm	1.02 K	6.04 MB	0	1.269	0.01	1.000	89	96	12/8 12:33:38
110550023	1.00	9.11 M	10 ms	26.23 MB	0 B	0	0	0	0	cpp_shm	1.1 K	7.61 MB	0	1.256	0.01	1.000	88	95	12/15 21:48:36
109550156	1.00	14.18 M	10 ms	25.06 MB	0 B	0	0	0	0	cpp_shm	819	6.19 MB	0	1.250	0.01	1.000	88	95	12/15 22:15:19
109550178	1.00	3.01 M	40 ms	100.14 MB	0 B	0	0	0	0	cpp_shm	20.13 K	80.62 MB	0	1.205	0.01	1.000	85	94	12/14 01:35:43
109550022	1.00	39.05 M	40 ms	31.1 MB	0 B	0	0	0	0	cpp_shm	615	5.58 MB	0	1.199	0.01	1.000	84	94	12/7 23:47:24
109550150	1.00	4.24 M	30 ms	81.34 MB	0 B	0	0	0	0	cpp_shm	7.94 K	61.96 MB	0	1.191	0.01	1.000	84	93	12/13 22:18:51
0816138	1.00	4.58 M	50 ms	118.83 MB	0 B	0	0	0	0	cpp_shm	25.11 K	99.83 MB	0	1.161	0.01	1.000	82	93	12/14 02:58:03
109700045	1.00	48.45 M	30 ms	25.42 MB	0 B	0	0	0	0	cpp_shm	908	6.28 MB	0	1.158	0.01	1.000	81	93	12/13 15:29:36
109550006	1.00	7.43 M	20 ms	81.15 MB	0 B	0	0	0	0	cpp_shm	3.08 K	61.57 MB	0	1.149	0.01	1.000	81	92	12/12 20:59:20
109550160	1.00	49.06 M	20 ms	25.46 MB	0 B	0	0	0	0	cpp_shm	1.08 K	6.88 MB	0	1.142	0.01	1.000	80	92	12/8 21:13:43
109550088	1.00	59.87 M	40 ms	25.57 MB	0 B	0	0	0	0	cpp_shm	1.02 K	6.61 MB	0	1.134	0.01	1.000	80	92	12/11 17:17:41
0712211	1.00	53.17 M	40 ms	26.41 MB	0 B	0	0	0	0	cpp_shm	1.18 K	6.71 MB	0	1.134	0.01	1.000	80	92	12/2 20:11:23

109550096	1.00	61.04 M	30 ms	26.2 MB	0 B	0	0	0	0	cpp_shm	1.13 K	6.91 MB	0	1.126	0.01	1.000	79	92	12/10 16:52:40
109550130	1.00	61.16 M	30 ms	26.2 MB	0 B	0	0	0	0	cpp_shm	1.13 K	7.05 MB	0	1.125	0.01	1.000	79	92	12/10 20:52:44
109550110	1.00	62.72 M	40 ms	25.8 MB	0 B	0	0	0	0	cpp_shm	1.2 K	6.73 MB	0	1.122	0.01	1.000	79	92	12/11 19:13:21
109550044	1.00	58.34 M	40 ms	26.3 MB	0 B	0	0	0	0	cpp_shm	1.64 K	6.98 MB	0	1.110	0.01	1.000	78	91	12/9 15:50:54
109550154	1.00	66.64 M	30 ms	26.95 MB	0 B	0	0	0	0	cpp_shm	1.5 K	8.36 MB	0	1.098	0.01	1.000	77	91	12/8 04:46:25
109550038	1.00	108.24 M	120 ms	25.79 MB	0 B	0	0	0	0	cpp_shm	1.12 K	7.52 MB	0	1.088	0.01	1.000	76	91	12/14 21:18:04
0712254	1.00	83.31 M	90 ms	26.56 MB	0 B	0	0	0	0	cpp_shm	1.45 K	8.9 MB	0	1.083	0.01	1.000	76	90	12/11 19:26:54
109550174	1.00	119.99 M	170 ms	26.56 MB	0 B	0	0	0	0	cpp_shm	1.17 K	7.78 MB	0	1.078	0.01	1.000	76	90	12/14 23:54:07
610001007	1.00	88.55 M	130 ms	26.69 MB	0 B	0	0	0	0	cpp_shm	1.34 K	10.46 MB	0	1.076	0.01	1.000	76	90	12/14 00:09:47
109550076	1.00	152.81 M	200 ms	26.46 MB	0 B	0	0	0	0	cpp_shm	1.14 K	7.13 MB	0	1.069	0.01	1.000	75	90	12/2 17:08:13
109550070	1.00	195.71 M	40 ms	17.45 MB	0 B	0	0	0	0	cpp	1.37 K	5.2 MB	0	1.062	0.01	1.000	75	90	12/14 00:38:39
109550164	1.00	122.51 M	50 ms	27.68 MB	0 B	0	0	0	0	cpp_shm	1.51 K	8.5 MB	0	1.061	0.01	1.000	75	90	12/12 16:32:50
109550182	1.00	136.9 M	60 ms	27.29 MB	0 B	0	0	0	0	cpp_shm	1.52 K	7.43 MB	0	1.060	0.01	1.000	75	90	12/14 11:30:19
109550026	1.00	133.19 M	50 ms	27.68 MB	0 B	0	0	0	0	cpp_shm	1.51 K	8.6 MB	0	1.056	0.01	1.000	74	90	12/7 18:41:24
109550053	1.00	122.18 M	150 ms	28.29 MB	0 B	0	0	0	0	cpp_shm	1.59 K	9.38 MB	0	1.054	0.01	1.000	74	90	12/12 14:02:32
109550018	1.00	133.85 M	60 ms	27.41 MB	0 B	0	0	0	0	cpp_shm	1.62 K	8.46 MB	0	1.053	0.01	1.000	74	90	12/15 22:42:48
0813463	1.00	261.14 M	120 ms	18.55 MB	0 B	0	0	0	0	cpp	1.14 K	6.45 MB	0	1.045	0.01	1.000	73	89	12/6 19:10:11
109550126	1.00	282.09 M	170 ms	18.4 MB	0 B	0	0	0	0	cpp	1.11 K	6.22 MB	0	1.043	0.01	1.000	73	89	12/13 22:29:10
109550168	1.00	238.31 M	70 ms	18.3 MB	0 B	0	0	0	0	cpp	1.6 K	5.39 MB	0	1.042	0.01	1.000	73	89	12/13 22:00:08

109550133	1.00	144.53 M	70 ms	27.97 MB	0 B	0	0	0	0	cpp_shm	1.75 K	9.24 MB	0	1.041	0.01	1.000	73	89	12/4 22:28:51
109550146	1.00	146.59 M	60 ms	27.96 MB	0 B	0	0	0	0	cpp_shm	1.75 K	9.09 MB	0	1.041	0.01	1.000	73	89	12/14 18:39:36
0812102	1.00	293.03 M	180 ms	18.55 MB	0 B	0	0	0	0	cpp	1.14 K	6.34 MB	0	1.039	0.01	1.000	73	89	12/15 20:23:30
109550052	1.00	143.64 M	60 ms	28.29 MB	0 B	0	0	0	0	cpp_shm	1.98 K	9.03 MB	0	1.037	0.01	1.000	73	89	12/9 16:16:15
109550016	1.00	146.04 M	130 ms	28.89 MB	0 B	0	0	0	0	cpp_shm	1.74 K	10.1 MB	0	1.037	0.01	1.000	73	89	12/7 21:38:53
109550124	1.00	180.32 M	160 ms	28.11 MB	0 B	0	0	0	0	cpp_shm	1.55 K	9.41 MB	0	1.034	0.01	1.000	73	89	12/13 22:36:02
109550066	1.00	145.7 M	50 ms	28.29 MB	0 B	0	0	0	0	cpp_shm	2.11 K	9.41 MB	0	1.032	0.01	1.000	73	89	12/12 17:13:09
109550158	1.00	180.32 M	170 ms	28.11 MB	0 B	0	0	0	0	cpp_shm	1.64 K	9.38 MB	0	1.031	0.01	1.000	73	89	12/14 00:25:18
109550162	1.00	146.62 M	60 ms	27.96 MB	0 B	0	0	0	0	cpp_shm	1.88 K	11.64 MB	0	1.027	0.01	1.000	72	89	12/15 23:38:24
109550128	1.00	214.43 M	310 ms	26.95 MB	0 B	0	0	0	0	cpp_shm	1.53 K	9.11 MB	0	1.027	0.01	1.000	72	89	12/6 16:50:39
109550054	1.00	174.87 M	110 ms	28.51 MB	0 B	0	0	0	0	cpp_shm	1.98 K	9.64 MB	0	1.024	0.01	1.000	72	89	12/14 21:47:12
109550071	1.00	184.64 M	190 ms	29.01 MB	0 B	0	0	0	0	cpp_shm	1.78 K	10.17 MB	0	1.023	0.01	1.000	72	89	12/10 23:57:18
109652026	1.00	189.35 M	230 ms	29.01 MB	0 B	0	0	0	0	cpp_shm	1.79 K	10.3 MB	0	1.021	0.01	1.000	72	89	12/10 16:24:10
109550086	1.00	182.25 M	140 ms	28.7 MB	0 B	0	0	0	0	cpp_shm	2.07 K	9.97 MB	0	1.018	0.01	1.000	72	89	12/11 01:59:14
109550090	1.00	315.99 M	150 ms	20.1 MB	0 B	0	0	0	0	cpp	1.52 K	7.7 MB	0	1.014	0.01	1.000	71	89	12/12 02:11:48
109550058	1.00	356.46 M	240 ms	20.1 MB	0 B	0	0	0	0	cpp	1.52 K	7.84 MB	0	1.007	0.01	1.000	71	88	12/13 11:16:59
109550002	1.00	321.81 M	150 ms	20.87 MB	0 B	0	0	0	0	cpp	1.71 K	8.46 MB	0	1.004	0.01	1.000	71	88	12/8 00:51:39
0812236	1.00	194.89 M	220 ms	32.33 MB	0 B	0	0	0	0	cpp_shm	2.89 K	14.69 MB	0	1.003	0.01	1.000	71	88	12/11 21:05:58
109550056	1.00	320.19	160 ms	20.87	0 B	0	0	0	0	cpp	1.71	8.64	0	1.003	0.01	1.000	71	88	12/15 00:57:59

		M		MB							K	MB							
109550046	1.00	320.29 M	150 ms	21.07 MB	0 B	0	0	0	0	cpp	1.8 K	8.62 MB	0	1.003	0.01	1.000	70	88	12/14 23:36:43
baseline	1.00	352.12 M	100 ms	20.34 MB	0 B	0	0	0	0	cpp	1.86 K	7.59 MB	0	1.000	0.01	1.000	70	88	11/19 19:06:54
109550132	1.00	342.12 M	170 ms	20.88 MB	0 B	0	0	0	0	cpp	2.09 K	10.16 MB	0	1.000	0.01	1.000	70	88	12/15 21:29:27
109652017	1.00	342.12 M	200 ms	21.26 MB	0 B	0	0	0	0	cpp	1.81 K	8.57 MB	0	0.999	0.01	1.000	70	88	12/10 20:27:11
109550085	1.00	340.24 M	120 ms	21.63 MB	0 B	0	0	0	0	cpp	2.01 K	9.06 MB	0	0.998	0.01	1.000	70	88	12/11 15:56:23
109652042	1.00	366.1 M	190 ms	20.88 MB	0 B	0	0	0	0	cpp	1.71 K	8.51 MB	0	0.997	0.01	1.000	70	88	12/10 23:33:58
0717030	1.00	231.6 M	160 ms	31.12 MB	0 B	0	0	0	0	cpp_shm	3.02 K	11.76 MB	0	0.997	0.01	1.000	70	88	12/15 23:42:32
109652053	1.00	366 M	230 ms	21 MB	0 B	0	0	0	0	cpp	1.76 K	8.85 MB	0	0.996	0.01	1.000	70	88	12/15 22:39:07
109550142	1.00	386.95 M	210 ms	21.39 MB	0 B	0	0	0	0	cpp	1.91 K	8.85 MB	0	0.992	0.01	1.000	70	88	12/10 20:33:47
109550118	1.00	387.99 M	230 ms	21.39 MB	0 B	0	0	0	0	cpp	1.9 K	8.73 MB	0	0.992	0.01	1.000	70	88	12/8 13:12:52
109550020	1.00	226.56 M	210 ms	38.15 MB	0 B	0	0	0	0	cpp_shm	3.57 K	21.29 MB	0	0.986	0.01	1.000	69	88	12/6 22:57:43
610001005	1.00	293.73 M	380 ms	30.56 MB	0 B	0	0	0	0	cpp_shm	3.13 K	15.62 MB	0	0.985	0.01	1.000	69	88	12/14 18:04:30
M093638	1.00	2.25 G	490 ms	114.79 MB	0 B	0	0	0	0	python	13.71 K	42.13 MB	0	0.828	4.41	1.000	58	88	12/2 19:51:52
109550184	1.00	422.17 M	100 ms	24.21 MB	0 B	0	0	0	0	cpp	4.01 K	11.43 MB	0	0.981	0.01	1.000	69	88	12/15 22:51:58
109550001	1.00	484.7 M	350 ms	21.69 MB	0 B	0	0	0	0	cpp	1.92 K	8.87 MB	0	0.980	0.01	1.000	69	88	12/15 23:01:35
0811619	1.00	424.17 M	390 ms	26.95 MB	0 B	0	0	0	0	cpp_shm	1.99 K	11.08 MB	0	0.974	0.01	1.000	68	87	12/12 01:42:00
109550106	1.00	532.77 M	250 ms	29.41 MB	0 B	0	0	0	0	cpp	5.3 K	19.13 MB	0	0.959	0.01	1.000	67	87	12/15 21:18:17
0516048	1.00	685.38 M	250 ms	24.38 MB	0 B	0	0	0	0	cpp	2.81 K	11.27 MB	0	0.957	0.01	1.000	67	87	12/15 22:37:59

109550134	1.00	2.48 G	7 s	25.79 MB	0 B	0	0	0	0	cpp_shm	1.23 K	6.9 MB	0	0.929	0.01	1.000	65	86	12/15 05:53:07
0816074	1.00	3.66 G	530 ms	20.48 MB	0 B	0	0	0	0	cpp	1.59 K	7.74 MB	0	0.898	0.01	1.000	63	85	12/15 21:40:11
0816077	1.00	24.07 G	2 s	19.02 MB	0 B	0	0	0	0	cpp	1.47 K	6.21 MB	0	0.838	0.01	1.000	59	84	12/3 04:54:50
109550100	1.00	34.63 G	8 s	18.91 MB	0 B	0	0	0	0	cpp	1.22 K	5.93 MB	0	0.834	0.01	1.000	59	83	12/14 20:17:33
0816068	1.00	18.05 G	22 s	20.87 MB	0 B	0	0	0	0	cpp	1.71 K	8.5 MB	0	0.832	0.01	1.000	58	83	12/14 22:12:16
109550049	1.00	51.34 G	6 s	55.45 MB	0 B	0	0	0	0	cpp	1.15 K	4.68 MB	0	0.832	0.01	1.000	58	83	12/4 21:13:41
0816078	1.00	18.05 G	22 s	20.87 MB	0 B	0	0	0	0	cpp	1.71 K	8.59 MB	0	0.832	0.01	1.000	58	83	12/15 23:58:57
109101012	1.00	42.37 G	9 s	26.02 MB	0 B	0	0	0	0	cpp_shm	1.11 K	6.78 MB	0	0.826	0.01	1.000	58	83	12/15 14:35:52
0511258	1.00	26.65 G	2 s	26.54 MB	0 B	0	0	0	0	cpp_shm	1.59 K	7.7 MB	0	0.824	0.01	1.000	58	83	12/15 17:21:52
109550082	1.00	1.77 G	740 ms	475.16 MB	0 B	0	0	0	0	cpp	6.83 K	462.63 MB	0	0.778	0.01	1.000	55	82	12/15 22:38:09
0711624	1.00	62.8 G	7 s	20.57 MB	0 B	0	0	0	0	cpp	2.36 K	7.82 MB	0	0	0.00	1.000	0	55	12/20 17:35:20
0713339	0.78	20.21 G	2 s	26.2 MB	0 B	0	0	0	0	cpp_shm	1.37 K	7.04 MB	0	0	0.00	0.778	0	47	12/15 19:51:07
109550153	0.11	22.05 K	10 ms	23.46 MB	0 B	0	0	0	0	cpp_shm	398	3.56 MB	0	0	0.00	0.111	0	2	12/16 00:02:58
0816079	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	12	0	0.00	0.000	0	0	12/15 23:23:23
309551149	0.00	0	10 ms	19.65 MB	0 B	0	0	0	0	cpp_shm	394	3.44 MB	0	0	0.00	0.000	0	0	12/21 04:51:30

number of submission = 87

number of effective submission (priority>0) = 82

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+369222808)/lg(2+I_refs)
        perf_I2 = lg(2+100000)/lg(2+cpu_time) )
        perf_I = (perf_I1>0) ? perf_I1 : perf_I2
        priority = perf_I * max( lg(2+21327872)/lg(2+m_peak) , lg(2+1908*7954432)/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)
```