

## HW2. Sparse Matrix

Deadline: 2021-10-17 23:59:59

generated at : 2021-11-11 23:45:02

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
<a href="#">109550098</a>	1.00	<a href="#">12.86</a> <a href="#">M</a>	10 ms	27.88 MB	0 B	0	0	0	0	cpp_shm	542	6.77 MB	0	1.217	1.68	1.000	93	99	10/17 23:58:54
<a href="#">109550074</a>	1.00	<a href="#">22.07</a> <a href="#">M</a>	10 ms	26.53 MB	0 B	0	0	0	0	cpp_shm	650	7.21 MB	0	1.165	1.68	1.000	89	97	10/8 13:22:53
<a href="#">109550206</a>	1.00	<a href="#">33.91</a> <a href="#">M</a>	20 ms	27.22 MB	0 B	0	0	0	0	cpp_shm	797	7.45 MB	0	1.125	1.68	1.000	86	96	10/17 20:57:14
<a href="#">110550023</a>	1.00	<a href="#">67.76</a> <a href="#">M</a>	20 ms	27.3 MB	0 B	0	0	0	0	cpp_shm	805	7.87 MB	0	1.081	1.68	1.000	83	95	10/17 23:30:27
<a href="#">109550094</a>	1.00	<a href="#">77.79</a> <a href="#">M</a>	20 ms	27.32 MB	0 B	0	0	0	0	cpp_shm	830	8.16 MB	0	1.073	1.68	1.000	82	94	10/17 21:21:57
<a href="#">109550124</a>	1.00	<a href="#">94.08</a> <a href="#">M</a>	20 ms	16.25 MB	0 B	0	0	0	0	cpp	564	3.84 MB	0	1.112	0.24	1.000	85	94	10/17 20:56:29
<a href="#">109550182</a>	1.00	<a href="#">103.64</a> <a href="#">M</a>	50 ms	16.11 MB	0 B	0	0	0	0	cpp	528	3.69 MB	0	1.112	0.24	1.000	85	94	10/10 16:22:53
<a href="#">109550082</a>	1.00	<a href="#">94.63</a> <a href="#">M</a>	20 ms	16.25 MB	0 B	0	0	0	0	cpp	566	3.85 MB	0	1.111	0.24	1.000	85	94	10/17 23:50:17
<a href="#">109550018</a>	1.00	<a href="#">103.45</a> <a href="#">M</a>	50 ms	16.11 MB	0 B	0	0	0	0	cpp	538	3.7 MB	0	1.111	0.24	1.000	85	94	10/10 20:25:10
<a href="#">109550054</a>	1.00	<a href="#">94.64</a> <a href="#">M</a>	20 ms	16.25 MB	0 B	0	0	0	0	cpp	573	3.89 MB	0	1.110	0.24	1.000	85	94	10/15 16:53:40
<a href="#">109550160</a>	1.00	<a href="#">148.29</a> <a href="#">M</a>	30 ms	15.81 MB	0 B	0	0	0	0	cpp	464	3.23 MB	0	1.104	0.24	1.000	84	94	10/9 22:41:32
<a href="#">109550070</a>	1.00	<a href="#">150.85</a> <a href="#">M</a>	20 ms	15.81 MB	0 B	0	0	0	0	cpp	465	3.25 MB	0	1.102	0.24	1.000	84	94	10/13 23:02:28
<a href="#">109550132</a>	1.00	<a href="#">105.41</a> <a href="#">M</a>	20 ms	16.32 MB	0 B	0	0	0	0	cpp	617	3.8 MB	0	1.101	0.24	1.000	84	94	10/17 17:14:48
<a href="#">109550053</a>	1.00	<a href="#">83.72</a> <a href="#">M</a>	20 ms	17.03 MB	0 B	0	0	0	0	cpp	793	4.91 MB	0	1.099	0.24	1.000	84	94	10/13 20:04:40
<a href="#">109550174</a>	1.00	<a href="#">148.38</a> <a href="#">M</a>	20 ms	15.82 MB	0 B	0	0	0	0	cpp	490	3.41 MB	0	1.098	0.24	1.000	84	94	10/14 13:40:00
<a href="#">109550022</a>	1.00	<a href="#">154.57</a> <a href="#">M</a>	20 ms	15.81 MB	0 B	0	0	0	0	cpp	477	3.39 MB	0	1.098	0.24	1.000	84	94	10/13 22:57:28

<a href="#">109550068</a>	1.00	<a href="#">175.64 M</a>	150 ms	26.15 MB	0 B	0	0	0	0	cpp_shm	535	6.97 MB	0	1.049	1.68	1.000	80	94	10/9 05:15:49
<a href="#">109550110</a>	1.00	<a href="#">119.33 M</a>	30 ms	27.33 MB	0 B	0	0	0	0	cpp_shm	831	8.02 MB	0	1.048	1.68	1.000	80	94	10/14 22:51:16
<a href="#">109652026</a>	1.00	<a href="#">92.64 M</a>	20 ms	16.88 MB	0 B	0	0	0	0	cpp	756	4.73 MB	0	1.093	0.24	1.000	84	94	10/16 13:27:04
<a href="#">109652053</a>	1.00	<a href="#">94.16 M</a>	20 ms	16.88 MB	0 B	0	0	0	0	cpp	748	4.52 MB	0	1.092	0.24	1.000	83	94	10/17 20:22:09
<a href="#">109550096</a>	1.00	<a href="#">147.44 M</a>	20 ms	16.18 MB	0 B	0	0	0	0	cpp	534	3.72 MB	0	1.090	0.24	1.000	83	94	10/14 14:36:45
<a href="#">109550158</a>	1.00	<a href="#">125.87 M</a>	40 ms	16.24 MB	0 B	0	0	0	0	cpp	590	4.11 MB	0	1.089	0.24	1.000	83	94	10/16 07:24:38
<a href="#">109550006</a>	1.00	<a href="#">148.37 M</a>	30 ms	16.11 MB	0 B	0	0	0	0	cpp	543	3.83 MB	0	1.087	0.24	1.000	83	93	10/15 04:05:39
<a href="#">0816068</a>	1.00	<a href="#">128.42 M</a>	30 ms	16.35 MB	0 B	0	0	0	0	cpp	619	3.98 MB	0	1.087	0.24	1.000	83	93	10/16 16:50:21
<a href="#">109550130</a>	1.00	<a href="#">149.09 M</a>	20 ms	16.18 MB	0 B	0	0	0	0	cpp	547	3.82 MB	0	1.087	0.24	1.000	83	93	10/14 15:17:40
<a href="#">0711624</a>	1.00	<a href="#">198.85 M</a>	160 ms	26.28 MB	0 B	0	0	0	0	cpp_shm	575	6.99 MB	0	1.039	1.68	1.000	79	93	10/17 02:16:56
<a href="#">109550138</a>	1.00	<a href="#">195.14 M</a>	30 ms	15.89 MB	0 B	0	0	0	0	cpp	465	3.45 MB	0	1.085	0.24	1.000	83	93	10/17 18:15:27
<a href="#">109550016</a>	1.00	<a href="#">207.91 M</a>	40 ms	26.36 MB	0 B	0	0	0	0	cpp_shm	610	6.59 MB	0	1.036	1.68	1.000	79	93	10/17 21:54:03
<a href="#">109550133</a>	1.00	<a href="#">102.65 M</a>	30 ms	18.5 MB	0 B	0	0	0	0	cpp	1.11 K	6.18 MB	0	1.081	0.24	1.000	83	93	9/30 21:32:58
<a href="#">109550106</a>	1.00	<a href="#">130.27 M</a>	60 ms	16.5 MB	0 B	0	0	0	0	cpp	654	4.34 MB	0	1.079	0.24	1.000	82	93	10/17 04:30:06
<a href="#">109550164</a>	1.00	<a href="#">130.84 M</a>	70 ms	16.5 MB	0 B	0	0	0	0	cpp	650	4.36 MB	0	1.079	0.24	1.000	82	93	10/10 16:53:16
<a href="#">109550118</a>	1.00	<a href="#">136.03 M</a>	70 ms	16.5 MB	0 B	0	0	0	0	cpp	655	4.17 MB	0	1.078	0.24	1.000	82	93	10/17 10:41:36
<a href="#">109550071</a>	1.00	<a href="#">133.6 M</a>	70 ms	16.5 MB	0 B	0	0	0	0	cpp	653	4.36 MB	0	1.077	0.24	1.000	82	93	10/13 14:26:14
<a href="#">610001007</a>	1.00	<a href="#">238.74 M</a>	130 ms	15.85 MB	0 B	0	0	0	0	cpp	471	3.21 MB	0	1.076	0.24	1.000	82	93	10/2 13:28:27
<a href="#">109550156</a>	1.00	<a href="#">212.79 M</a>	120 ms	16.11 MB	0 B	0	0	0	0	cpp	528	3.65 MB	0	1.070	0.24	1.000	82	93	10/15 12:05:59

<a href="#">109652017</a>	1.00	<a href="#">241.91 M</a>	40 ms	15.89 MB	0 B	0	0	0	0	cpp	501	3.47 MB	0	1.069	0.24	1.000	82	93	10/17 02:27:55
<a href="#">109550046</a>	1.00	<a href="#">207.95 M</a>	110 ms	16.11 MB	0 B	0	0	0	0	cpp	558	3.79 MB	0	1.067	0.24	1.000	82	93	10/17 10:59:55
<a href="#">0712211</a>	1.00	<a href="#">211.61 M</a>	110 ms	16.11 MB	0 B	0	0	0	0	cpp	554	3.8 MB	0	1.066	0.24	1.000	82	93	10/1 13:36:53
<a href="#">0816138</a>	1.00	<a href="#">218.58 M</a>	160 ms	15.98 MB	0 B	0	0	0	0	cpp	526	3.88 MB	0	1.066	0.24	1.000	81	93	10/8 12:32:52
<a href="#">109652042</a>	1.00	<a href="#">260.6 M</a>	30 ms	15.88 MB	0 B	0	0	0	0	cpp	498	3.4 MB	0	1.066	0.24	1.000	81	93	10/17 01:00:59
<a href="#">109550050</a>	1.00	<a href="#">256.81 M</a>	190 ms	15.86 MB	0 B	0	0	0	0	cpp	474	3.64 MB	0	1.066	0.24	1.000	81	93	10/11 02:52:47
<a href="#">109550142</a>	1.00	<a href="#">256.96 M</a>	150 ms	15.86 MB	0 B	0	0	0	0	cpp	478	3.66 MB	0	1.065	0.24	1.000	81	93	10/16 02:14:18
<a href="#">0712254</a>	1.00	<a href="#">213.68 M</a>	100 ms	16.24 MB	0 B	0	0	0	0	cpp	579	3.97 MB	0	1.062	0.24	1.000	81	93	10/9 15:42:26
<a href="#">109550088</a>	1.00	<a href="#">221.26 M</a>	100 ms	16.12 MB	0 B	0	0	0	0	cpp	561	3.97 MB	0	1.061	0.24	1.000	81	93	10/12 23:57:06
<a href="#">0717030</a>	1.00	<a href="#">375.4 M</a>	40 ms	26.04 MB	0 B	0	0	0	0	cpp_shm	509	6.64 MB	0	1.013	1.68	1.000	77	93	10/17 22:19:58
<a href="#">109550126</a>	1.00	<a href="#">303.75 M</a>	170 ms	15.98 MB	0 B	0	0	0	0	cpp	519	3.77 MB	0	1.050	0.24	1.000	80	92	10/16 23:43:27
<a href="#">109550086</a>	1.00	<a href="#">361.73 M</a>	80 ms	15.89 MB	0 B	0	0	0	0	cpp	515	3.26 MB	0	1.048	0.24	1.000	80	92	10/16 09:59:24
<a href="#">0516048</a>	1.00	<a href="#">211.9 M</a>	40 ms	16.27 MB	120 KB	0	0	0	0	cpp	560	3.64 MB	0	1.068	0.24	0.993	82	92	10/17 16:48:55
<a href="#">109550184</a>	1.00	<a href="#">383.02 M</a>	230 ms	15.86 MB	0 B	0	0	0	0	cpp	473	3.51 MB	0	1.046	0.24	1.000	80	92	10/17 21:32:01
<a href="#">109550002</a>	1.00	<a href="#">220.02 M</a>	110 ms	16.88 MB	0 B	0	0	0	0	cpp	729	4.52 MB	0	1.044	0.24	1.000	80	92	10/15 01:40:36
<a href="#">109550026</a>	1.00	<a href="#">217.36 M</a>	100 ms	17.09 MB	0 B	0	0	0	0	cpp	872	5.02 MB	0	1.044	0.24	1.000	80	92	10/4 22:14:16
<a href="#">109550052</a>	1.00	<a href="#">414.7 M</a>	70 ms	15.82 MB	0 B	0	0	0	0	cpp	470	3.39 MB	0	1.044	0.24	1.000	80	92	10/16 10:08:38
<a href="#">109550178</a>	1.00	<a href="#">232.81 M</a>	120 ms	16.63 MB	0 B	0	0	0	0	cpp	678	4.47 MB	0	1.043	0.24	1.000	80	92	10/17 21:51:13
<a href="#">109550150</a>	1.00	<a href="#">280.19 M</a>	220 ms	16.5 MB	0 B	0	0	0	0	cpp	649	4.35 MB	0	1.037	0.24	1.000	79	92	10/9 01:08:18

<a href="#">109550134</a>	1.00	<a href="#">372.93 M</a>	200 ms	16.11 MB	0 B	0	0	0	0	cpp	558	3.9 MB	0	1.034	0.24	1.000	79	92	10/17 19:05:26
<a href="#">109550066</a>	1.00	<a href="#">336.49 M</a>	60 ms	30.68 MB	0 B	0	0	0	0	cpp_shm	1.82 K	10.88 MB	0	0.986	1.68	1.000	75	92	10/17 18:29:26
<a href="#">0811619</a>	1.00	<a href="#">242.27 M</a>	100 ms	18.55 MB	0 B	0	0	0	0	cpp	1.5 K	5.51 MB	0	1.033	0.24	1.000	79	92	10/16 00:47:29
<a href="#">610001005</a>	1.00	<a href="#">376.07 M</a>	230 ms	16.11 MB	0 B	0	0	0	0	cpp	561	3.96 MB	0	1.033	0.24	1.000	79	92	10/15 16:49:35
<a href="#">109550168</a>	1.00	<a href="#">470.64 M</a>	60 ms	15.95 MB	0 B	0	0	0	0	cpp	534	3.34 MB	0	1.032	0.24	1.000	79	92	10/15 12:30:11
<a href="#">0816077</a>	1.00	<a href="#">528.84 M</a>	370 ms	15.85 MB	0 B	0	0	0	0	cpp	478	3.62 MB	0	1.027	0.24	1.000	79	92	10/17 20:00:57
<a href="#">109550020</a>	1.00	<a href="#">390.28 M</a>	190 ms	32.26 MB	0 B	0	0	0	0	cpp_shm	1.35 K	15.94 MB	0	0.976	1.68	1.000	75	92	10/17 01:08:03
<a href="#">109550076</a>	1.00	<a href="#">493.28 M</a>	210 ms	16.24 MB	0 B	0	0	0	0	cpp	573	4 MB	0	1.017	0.24	1.000	78	91	10/11 20:53:43
<a href="#">109550038</a>	1.00	<a href="#">449.29 M</a>	100 ms	16.76 MB	0 B	0	0	0	0	cpp	705	4.57 MB	0	1.007	0.24	1.000	77	91	10/17 02:18:54
<a href="#">109550128</a>	1.00	<a href="#">617.4 M</a>	340 ms	16.24 MB	0 B	0	0	0	0	cpp	567	4.05 MB	0	1.006	0.24	1.000	77	91	10/3 15:53:35
<a href="#">baseline</a>	1.00	<a href="#">524.2 M</a>	420 ms	16.63 MB	0 B	0	0	0	0	cpp	687	4.55 MB	0	1.000	0.24	1.000	76	91	9/29 19:57:02
<a href="#">109550058</a>	1.00	<a href="#">542.11 M</a>	100 ms	17.32 MB	0 B	0	0	0	0	cpp	996	4.6 MB	0	0.996	0.24	1.000	76	91	10/14 18:11:57
<a href="#">109550090</a>	1.00	<a href="#">957.68 M</a>	140 ms	16.25 MB	0 B	0	0	0	0	cpp	592	4.14 MB	0	0.982	0.24	1.000	75	90	10/16 12:47:16
<a href="#">M093638</a>	1.00	<a href="#">3.84 G</a>	520 ms	79.55 MB	0 B	0	0	0	0	python	2.75 K	12.57 MB	0	0.831	3.62	1.000	64	89	10/1 22:44:10
<a href="#">109550162</a>	1.00	<a href="#">5.97 G</a>	840 ms	75.93 MB	0 B	0	0	0	0	python	2.19 K	11.21 MB	0	0.817	3.62	1.000	62	89	10/14 21:29:04
<a href="#">109550100</a>	1.00	<a href="#">6.58 G</a>	840 ms	16.05 MB	0 B	0	0	0	0	cpp	489	3.43 MB	0	0.913	0.24	1.000	70	88	10/16 17:14:31
<a href="#">109550146</a>	1.00	<a href="#">6.97 G</a>	2 s	15.89 MB	0 B	0	0	0	0	cpp	499	3.31 MB	0	0.912	0.24	1.000	70	88	10/13 22:09:17
<a href="#">109550044</a>	1.00	<a href="#">349.8 M</a>	70 ms	26.09 MB	0 B	1	0	0	0	cpp_shm	527	6.54 MB	0	1.016	1.68	0.950	78	88	10/16 23:48:27
<a href="#">0812102</a>	1.00	<a href="#">4.18 G</a>	460 ms	17.37 MB	0 B	0	0	0	0	cpp	1018	4.36 MB	0	0.903	0.24	1.000	69	88	10/17 15:06:38

<a href="#">0812236</a>	1.00	<a href="#">5.66 G</a>	4 s	389.63 MB	0 B	0	0	0	0	cpp_shm	91.2 K	369.66 MB	0	0.751	1.68	1.000	57	85	10/17 19:16:01
<a href="#">109550049</a>	1.00	<a href="#">936.83 M</a>	420 ms	15.85 MB	25.9 KB	4	0	0	0	cpp	480	3.7 MB	0	0.998	0.24	0.813	76	74	10/17 18:35:31
<a href="#">0816078</a>	1.00	<a href="#">134.08 M</a>	30 ms	16.35 MB	0 B	0	0	0	0	cpp	610	3.87 MB	0	0	0.00	1.000	0	55	10/24 02:17:52
<a href="#">109101012</a>	1.00	<a href="#">149.15 M</a>	60 ms	16.11 MB	0 B	0	0	0	0	cpp	558	3.78 MB	0	0	0.00	1.000	0	55	10/18 00:26:20
<a href="#">109550001</a>	1.00	<a href="#">108.21 M</a>	30 ms	16.07 MB	0 B	0	0	0	0	cpp	522	3.57 MB	0	0	0.00	1.000	0	55	10/24 23:57:52
<a href="#">109550154</a>	1.00	<a href="#">149.13 M</a>	30 ms	26.11 MB	0 B	0	0	0	0	cpp_shm	523	6.55 MB	0	0	0.00	1.000	0	55	10/30 01:18:20
<a href="#">109700045</a>	1.00	<a href="#">328.82 M</a>	160 ms	27.32 MB	0 B	0	0	0	0	cpp_shm	829	7.93 MB	0	0	0.00	1.000	0	55	10/18 01:17:48
<a href="#">0813463</a>	1.00	<a href="#">48.92 G</a>	6 s	83.57 MB	0 B	0	0	0	0	python	2.35 K	12.78 MB	0	0	0.00	1.000	0	55	10/22 17:06:55
<a href="#">309552002</a>	1.00	<a href="#">48.93 G</a>	6 s	83.52 MB	0 B	0	0	0	0	python	2.35 K	12.76 MB	0	0	0.00	1.000	0	55	10/22 15:51:40
<a href="#">0816003</a>	1.00	<a href="#">355.66 M</a>	260 ms	16.62 MB	407.3 KB	2	0	0	0	cpp	681	4.32 MB	0	0	0.00	0.881	0	48	10/21 17:02:30
<a href="#">0713339</a>	0.70	<a href="#">173.03 M</a>	120 ms	15.85 MB	0 B	0	0	0	0	cpp	469	3.65 MB	0	0	0.00	0.700	0	42	10/17 21:40:21
<a href="#">0812249</a>	0.50	<a href="#">194.64 M</a>	100 ms	16.11 MB	0 B	0	0	0	0	cpp	557	3.98 MB	0	0	0.00	0.500	0	30	10/17 23:56:55
<a href="#">0717078</a>	0.10	<a href="#">731.99 M</a>	370 ms	16.25 MB	571.73 KB	4	0	0	0	cpp	578	4.09 MB	0	0	0.00	0.079	0	0	10/18 00:04:45
<a href="#">0816079</a>	0.00	<a href="#">0</a>	10 ms	-1	0 B	0	0	0	0	cpp	306	3 MB	1	0	0.00	0.000	0	0	10/16 21:30:13
<a href="#">109550085</a>	0.00	<a href="#">250.51 M</a>	140 ms	15.72 MB	1.41 KB	1	0	0	0	cpp	463	3.57 MB	0	0	0.00	0.000	0	0	10/18 00:13:21

number of submission = 88

number of effective submission (priority>0) = 75

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+549660258)/lg(2+I_refs)
    perf_I2 = lg(2+420000)/lg(2+cpu_time) )
    perf_I = (perf_I1>0) ? perf_I1 : perf_I2
    priority = perf_I * max( lg(2+17440768)/lg(2+m_peak) , lg(2+687*4767744)/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)

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