SMART simulation - All Simulated (Real covs) Covariates

Variance of Estimates Over Simulation Repetitions

0.0025

0.0020

0.0015

0.0010

0.0005

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

rule

Estimator

○ Min. adj. IPW (w/ g_0)
△ Min. adj. IPW (w/ g_n)
+ Full adj. IPW
◇ Full adj. TMLE
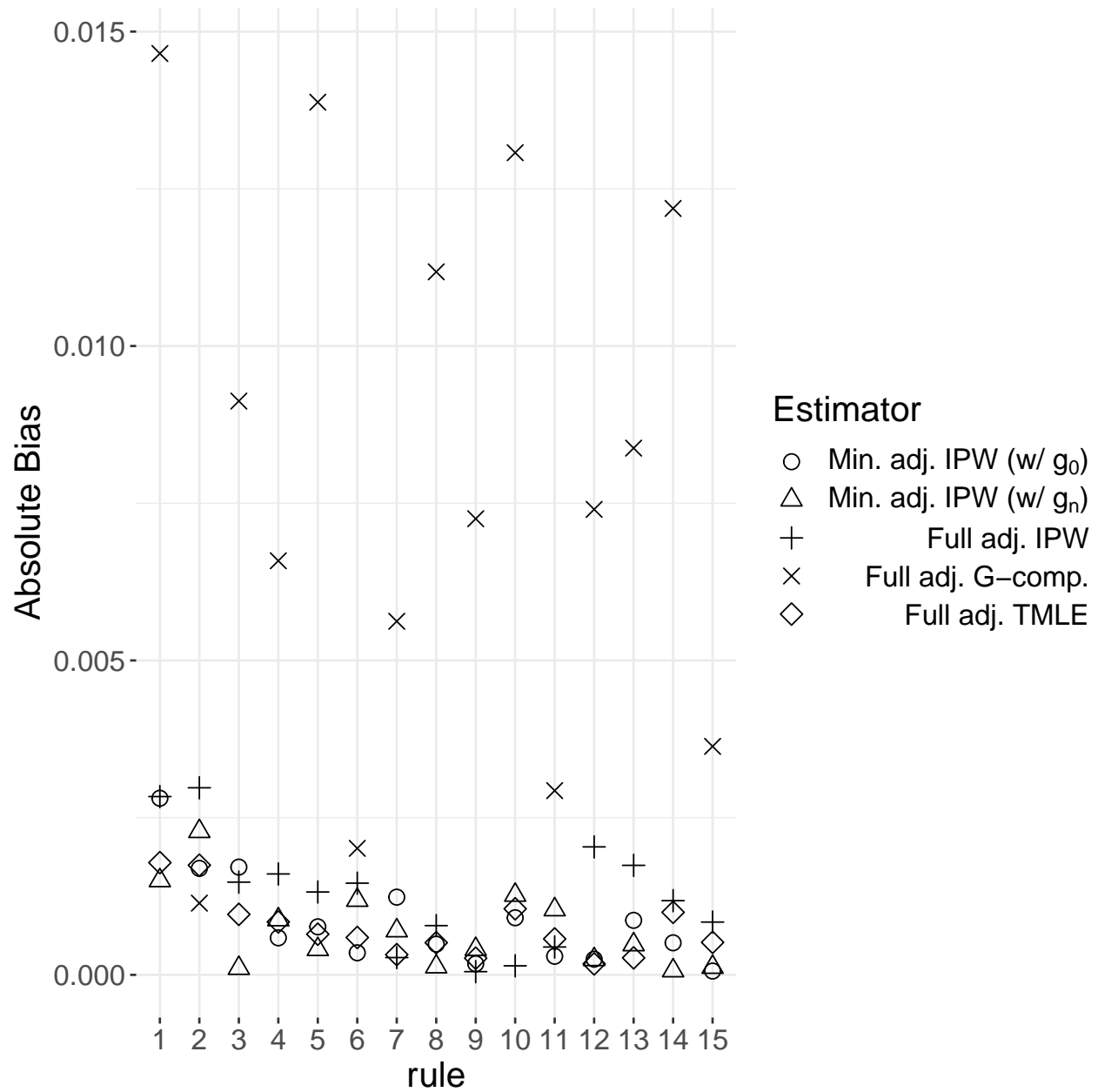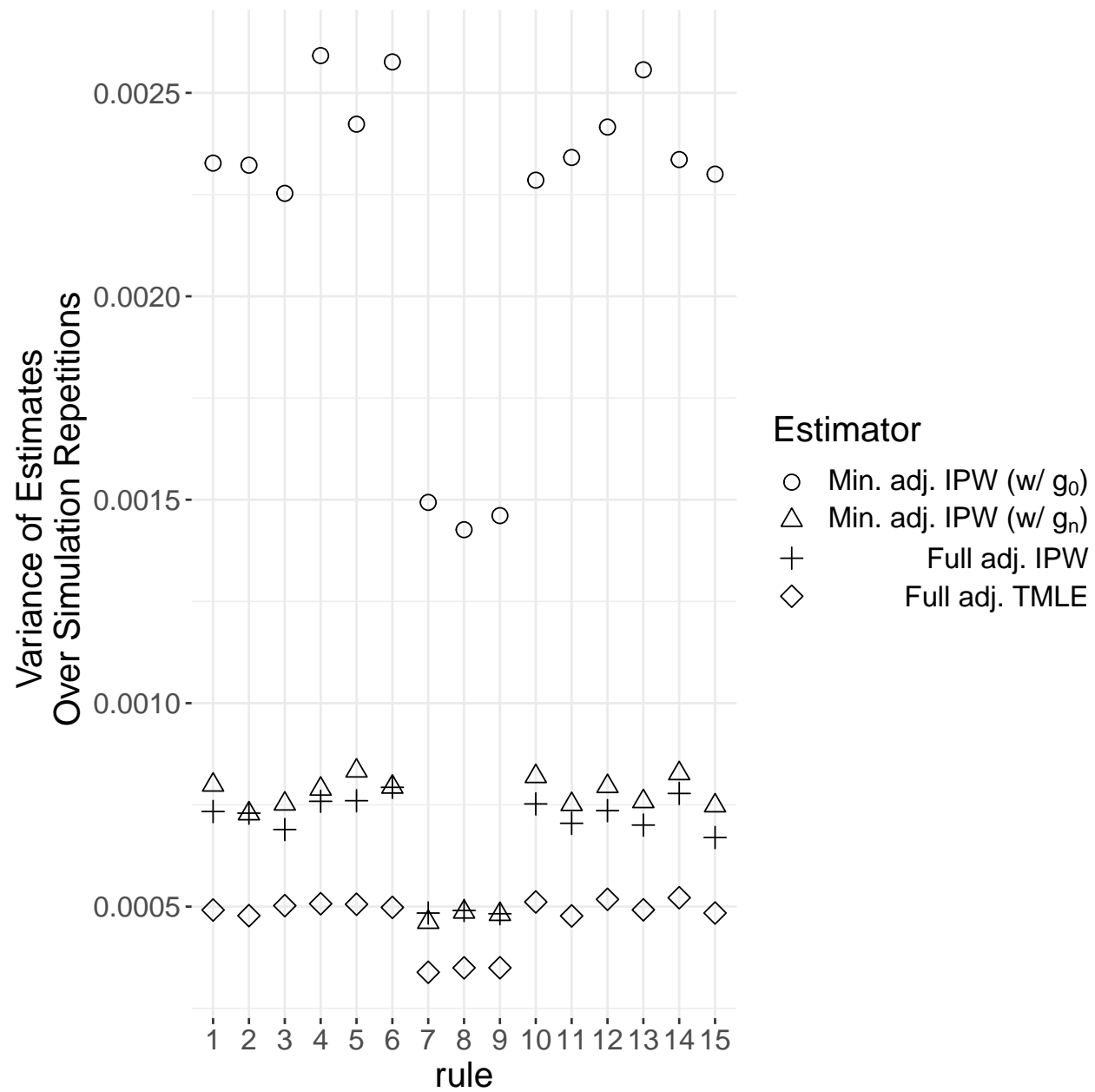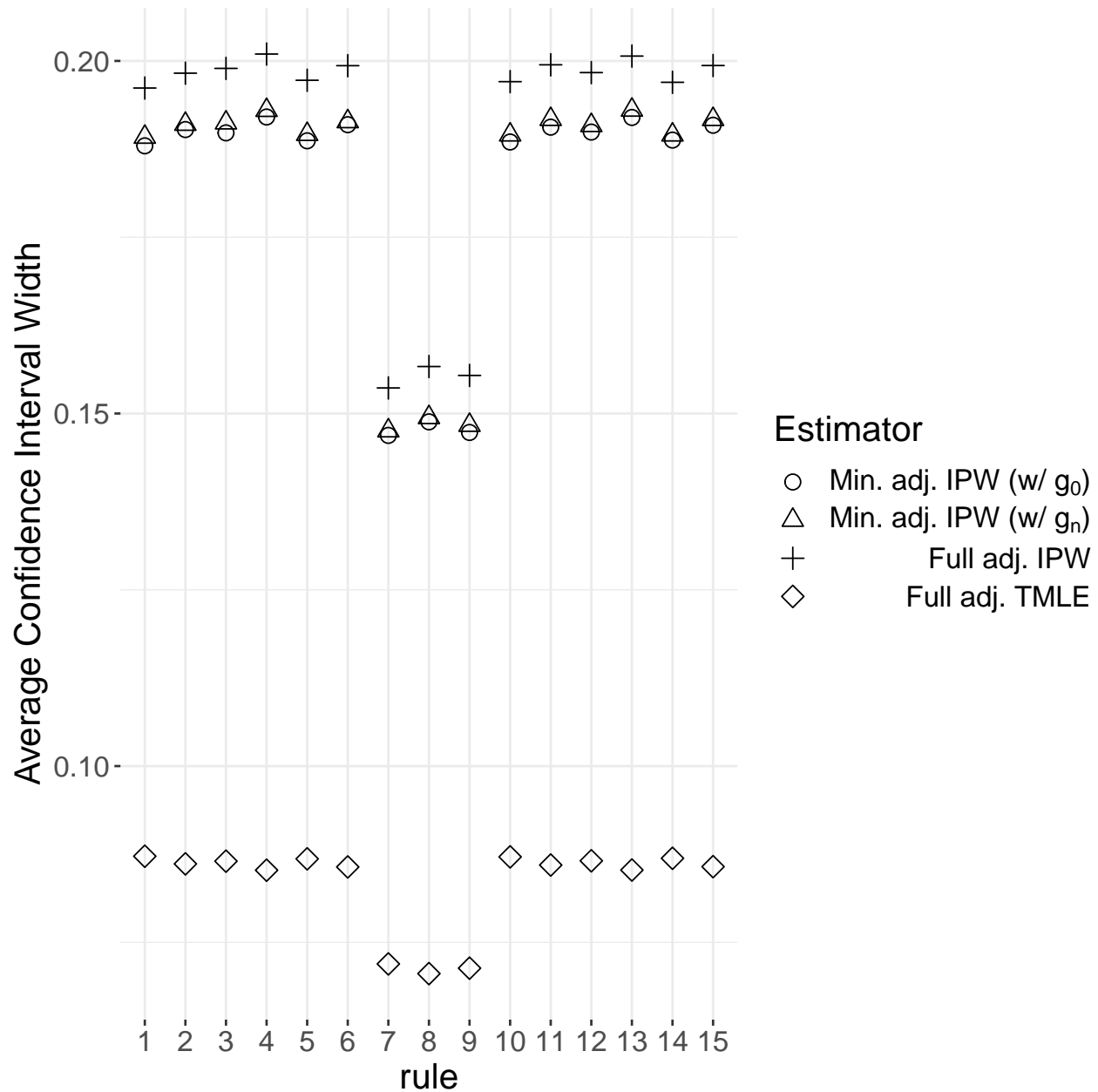
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	Rule	Estimator	Bias	Var.	C.I. Width
36	1	Min. adj. IPW (w/ g_0)	2.808647e-03	0.0023272797	0.18795782
37	1	Min. adj. IPW (w/ g_n)	1.500073e-03	0.0007990241	0.18919959
38	1	Full adj. IPTW	2.835077e-03	0.0007336945	0.19615706
39	1	Full adj. G-comp.	1.465137e-02	NA	NA
40	1	Full adj. TMLE	1.784771e-03	0.0004916176	0.08721119
66	2	Min. adj. IPW (w/ g_0)	1.693379e-03	0.0023222343	0.19026423
67	2	Min. adj. IPW (w/ g_n)	2.282251e-03	0.0007284508	0.19103391
68	2	Full adj. IPTW	2.974975e-03	0.0007297142	0.19826029
69	2	Full adj. G-comp.	1.140588e-03	NA	NA
70	2	Full adj. TMLE	1.744009e-03	0.0004777627	0.08613003
6	3	Min. adj. IPW (w/ g_0)	1.713476e-03	0.0022530074	0.18979943
7	3	Min. adj. IPW (w/ g_n)	1.058677e-04	0.0007524950	0.19122528
8	3	Full adj. IPTW	1.474570e-03	0.0006894648	0.19894015

9	3	Full adj. G-comp.	9.124380e-03	NA	NA
10	3	Full adj. TMLE	9.622125e-04	0.0005023252	0.08651203
46	4	Min. adj. IPW (w/ g_0)	5.885940e-04	0.0025915887	0.19204737
47	4	Min. adj. IPW (w/ g_n)	8.784304e-04	0.0007891027	0.19300241
48	4	Full adj. IPTW	1.604852e-03	0.0007588212	0.20097695
49	4	Full adj. G-comp.	6.584719e-03	NA	NA
50	4	Full adj. TMLE	8.417076e-04	0.0005070550	0.08522862
21	5	Min. adj. IPW (w/ g_0)	7.638404e-04	0.0024230440	0.18867341
22	5	Min. adj. IPW (w/ g_n)	4.058632e-04	0.0008336883	0.18959695
23	5	Full adj. IPTW	1.317958e-03	0.0007603245	0.19725593
24	5	Full adj. G-comp.	1.387736e-02	NA	NA
25	5	Full adj. TMLE	6.467377e-04	0.0005058092	0.08684067
56	6	Min. adj. IPW (w/ g_0)	3.511791e-04	0.0025760401	0.19095473
57	6	Min. adj. IPW (w/ g_n)	1.188289e-03	0.0007940230	0.19140422
58	6	Full adj. IPTW	1.458104e-03	0.0007931911	0.19932589
59	6	Full adj. G-comp.	2.012064e-03	NA	NA
60	6	Full adj. TMLE	5.942279e-04	0.0004980661	0.08569175
31	7	Min. adj. IPW (w/ g_0)	1.235687e-03	0.0014934521	0.14689361
32	7	Min. adj. IPW (w/ g_n)	7.028617e-04	0.0004616846	0.14755684
33	7	Full adj. IPTW	2.752914e-04	0.0004841683	0.15362450
34	7	Full adj. G-comp.	5.622333e-03	NA	NA
35	7	Full adj. TMLE	3.214255e-04	0.0003386089	0.07193991
1	8	Min. adj. IPW (w/ g_0)	4.888215e-04	0.0014263010	0.14881475
2	8	Min. adj. IPW (w/ g_n)	1.300263e-04	0.0004869303	0.14944036
3	8	Full adj. IPTW	7.830862e-04	0.0004905255	0.15666091
4	8	Full adj. G-comp.	1.117954e-02	NA	NA
5	8	Full adj. TMLE	5.113311e-04	0.0003495043	0.07056307
16	9	Min. adj. IPW (w/ g_0)	1.764982e-04	0.0014609520	0.14731154
17	9	Min. adj. IPW (w/ g_n)	4.069342e-04	0.0004811551	0.14834490
18	9	Full adj. IPTW	5.116463e-05	0.0004825169	0.15539801
19	9	Full adj. G-comp.	7.253513e-03	NA	NA
20	9	Full adj. TMLE	2.650669e-04	0.0003497118	0.07133550
41	10	Min. adj. IPW (w/ g_0)	9.081093e-04	0.0022854783	0.18850305
42	10	Min. adj. IPW (w/ g_n)	1.268820e-03	0.0008200322	0.18952080
43	10	Full adj. IPTW	1.441218e-04	0.0007524243	0.19705846
44	10	Full adj. G-comp.	1.307404e-02	NA	NA
45	10	Full adj. TMLE	1.050923e-03	0.0005114495	0.08712038
71	11	Min. adj. IPW (w/ g_0)	2.959054e-04	0.0023411699	0.19060601
72	11	Min. adj. IPW (w/ g_n)	1.037918e-03	0.0007513555	0.19172483
73	11	Full adj. IPTW	4.431420e-04	0.0007047480	0.19945092
74	11	Full adj. G-comp.	2.929682e-03	NA	NA
75	11	Full adj. TMLE	5.718015e-04	0.0004770814	0.08596317
11	12	Min. adj. IPW (w/ g_0)	2.494923e-04	0.0024160040	0.18990848
12	12	Min. adj. IPW (w/ g_n)	2.447960e-04	0.0007955413	0.19085638
13	12	Full adj. IPTW	2.035151e-03	0.0007358635	0.19834517
14	12	Full adj. G-comp.	7.401900e-03	NA	NA
15	12	Full adj. TMLE	1.739411e-04	0.0005179076	0.08656255
51	13	Min. adj. IPW (w/ g_0)	8.670839e-04	0.0025567189	0.19198296
52	13	Min. adj. IPW (w/ g_n)	4.810859e-04	0.0007584477	0.19303832
53	13	Full adj. IPTW	1.741519e-03	0.0007003532	0.20068694
54	13	Full adj. G-comp.	8.376234e-03	NA	NA

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55  13             Full adj. TMLE 2.703804e-04 0.0004920886 0.08525414
26  14 Min. adj. IPW (w/ $g_0$) 5.098582e-04 0.0023360389 0.18877071
27  14 Min. adj. IPW (w/ $g_n$) 6.682052e-05 0.0008271942 0.18951678
28  14             Full adj. IPTW 1.180179e-03 0.0007781034 0.19696758
29  14           Full adj. G-comp. 1.218731e-02           NA           NA
30  14             Full adj. TMLE 9.949876e-04 0.0005218379 0.08692036
61  15 Min. adj. IPW (w/ $g_0$) 6.087234e-05 0.0023002492 0.19087527
62  15 Min. adj. IPW (w/ $g_n$) 1.226083e-04 0.0007480914 0.19171433
63  15             Full adj. IPTW 8.396858e-04 0.0006697974 0.19934604
64  15           Full adj. G-comp. 3.632964e-03           NA           NA
65  15             Full adj. TMLE 5.172186e-04 0.0004842798 0.08573242
   Ind. Cov. (%) Simult. Cov. (%)
36          93.6             92.7
37          99.8            100.0
38         100.0            100.0
39            NA               NA
40          94.9             92.6
66          94.7             92.7
67         100.0            100.0
68         100.0            100.0
69            NA               NA
70          95.0             92.6
6           95.6             92.7
7           99.8            100.0
8           99.9            100.0
9             NA               NA
10          95.3             92.6
46          94.2             92.7
47          99.8            100.0
48          99.9            100.0
49            NA               NA
50          94.1             92.6
21          94.1             92.7
22          99.8            100.0
23         100.0            100.0
24            NA               NA
25          94.5             92.6
56          94.2             92.7
57         100.0            100.0
58         100.0            100.0
59            NA               NA
60          94.6             92.6
31          94.7             92.7
32         100.0            100.0
33          99.9            100.0
34            NA               NA
35          93.5             92.6
1           94.8             92.7
2           99.9            100.0
3           99.9            100.0
4             NA               NA
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5              94.4              92.6
16             95.1              92.7
17             99.7             100.0
18            100.0             100.0
19              NA                NA
20             94.6              92.6
41             95.5              92.7
42             99.8             100.0
43            100.0             100.0
44              NA                NA
45             93.7              92.6
71             94.7              92.7
72             99.8             100.0
73            100.0             100.0
74              NA                NA
75             94.3              92.6
11             94.9              92.7
12            100.0             100.0
13            100.0             100.0
14              NA                NA
15             94.6              92.6
51             93.9              92.7
52             99.8             100.0
53            100.0             100.0
54              NA                NA
55             94.3              92.6
26             95.1              92.7
27             99.9             100.0
28            100.0             100.0
29              NA                NA
30             94.1              92.6
61             94.3              92.7
62             99.9             100.0
63             99.9             100.0
64              NA                NA
65             94.9              92.6
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Calcs

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[1] 0.1140588 1.4651371
[1]   0.3833941 182.3887741
[1] 2.787059 5.195648
[1] 0.001269207 0.110130332
[1]  99.7 100.0
[1] 100 100
[1] 0.9535621 1.1168922
[1] 1.363474 5.195648
[1] 2.041893 2.358092
[1] 93.5 95.3
[1] 92.6 92.6
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