

***** reading edge list *****

(1, 14) (2, 14) (3, 14) (4, 14) (5, 14) (6, 14) (7, 14)
 (8, 14) (9, 14) (10, 14) (11, 14) (12, 14) (13, 14) (1, 13)
 (2, 13) (3, 13) (4, 13) (5, 13) (6, 13) (7, 13) (8, 13)
 (9, 13) (10, 13) (11, 13) (12, 13) (1, 12) (2, 12) (3, 12)
 (4, 12) (5, 12) (6, 12) (7, 12) (8, 12) (9, 12) (10, 12)
 (11, 12) (1, 11) (2, 11) (3, 11) (4, 11) (5, 11) (6, 11)
 (7, 11) (8, 11) (9, 11) (10, 11) (1, 10) (2, 10) (3, 10)
 (4, 10) (5, 10) (6, 10) (7, 10) (8, 10) (9, 10) (1, 9)
 (2, 9) (3, 9) (4, 9) (5, 9) (6, 9) (7, 9) (8, 9)
 (1, 8) (2, 8) (3, 8) (4, 8) (5, 8) (6, 8) (7, 8)
 (1, 7) (2, 7) (3, 7) (4, 7) (5, 7) (6, 7) (1, 6)
 (2, 6) (3, 6) (4, 6) (5, 6) (1, 5) (2, 5) (3, 5)
 (4, 5) (1, 4) (2, 4) (3, 4) (1, 3) (2, 3) (1, 2)

VERTICES = 14 EDGES = 91

	479001600 $x^1 y^0$
1486442880 $x^2 y^0$	1931559552 $x^3 y^0$
1414014888 $x^4 y^0$	657206836 $x^5 y^0$
206070150 $x^6 y^0$	44990231 $x^7 y^0$
6926634 $x^8 y^0$	749463 $x^9 y^0$
55770 $x^{10} y^0$	2717 $x^{11} y^0$
78 $x^{12} y^0$	1 $x^{13} y^0$
479001600 $x^0 y^1$	5088476160 $x^1 y^1$
11176060896 $x^2 y^1$	11238119256 $x^3 y^1$
6433683256 $x^4 y^1$	2308464158 $x^5 y^1$
543524982 $x^6 y^1$	85336680 $x^7 y^1$
8852844 $x^8 y^1$	582582 $x^9 y^1$
22022 $x^{10} y^1$	364 $x^{11} y^1$
4081034880 $x^0 y^2$	24200594496 $x^1 y^2$
40383599256 $x^2 y^2$	32018130144 $x^3 y^2$
14415336936 $x^4 y^2$	3988371387 $x^5 y^2$
699894195 $x^6 y^2$	77735658 $x^7 y^2$
5255250 $x^8 y^2$	195195 $x^9 y^2$
3003 $x^{10} y^2$	
17550685152 $x^0 y^3$	73214076936 $x^1 y^3$
96424151824 $x^2 y^3$	61351314024 $x^3 y^3$
22036974960 $x^4 y^3$	4786320539 $x^5 y^3$
644693049 $x^6 y^3$	53623570 $x^7 y^3$
2672670 $x^8 y^3$	75075 $x^9 y^3$
1001 $x^{10} y^3$	

51405882528 $x^0 y^4$
 175304435306 $x^2 y^4$
 26649142520 $x^4 y^4$
 499921422 $x^6 y^4$
 1201200 $x^8 y^4$

164259771676 $x^1 y^4$
 91171585505 $x^3 y^4$
 4664237578 $x^5 y^4$
 32477445 $x^7 y^4$
 20020 $x^9 y^4$

116465925576 $x^0 y^5$
 263509448202 $x^2 y^5$
 27771347604 $x^4 y^5$
 357230874 $x^6 y^5$
 576576 $x^8 y^5$

298234914978 $x^1 y^5$
 114170514458 $x^3 y^5$
 4032290262 $x^5 y^5$
 19081062 $x^7 y^5$
 8008 $x^9 y^5$

219285066000 $x^0 y^6$
 345535717527 $x^2 y^6$
 26325067769 $x^4 y^6$
 246366120 $x^6 y^6$
 264264 $x^8 y^6$

463518412357 $x^1 y^6$
 127124783786 $x^3 y^6$
 3260146890 $x^5 y^6$
 11096085 $x^7 y^6$
 2002 $x^9 y^6$

359298395456 $x^0 y^7$
 410096361675 $x^2 y^7$
 23463201762 $x^4 y^7$
 165134970 $x^6 y^7$
 105105 $x^8 y^7$

640958176287 $x^1 y^7$
 130443946633 $x^3 y^7$
 2529090564 $x^5 y^7$
 6182748 $x^7 y^7$

528866037128 $x^0 y^8$
 452076728103 $x^2 y^8$
 20073223170 $x^4 y^8$
 109483374 $x^6 y^8$
 45045 $x^8 y^8$

810613611951 $x^1 y^8$
 126342088873 $x^3 y^8$
 1913367456 $x^5 y^8$
 3474900 $x^7 y^8$

715529206964 $x^0 y^9$
 471505391357 $x^2 y^9$
 16702856170 $x^4 y^9$
 71513442 $x^6 y^9$
 15015 $x^8 y^9$

956654629359 $x^1 y^9$
 117409667375 $x^3 y^9$
 1423480058 $x^5 y^9$
 1861860 $x^7 y^9$

905059947792 $x^0 y^{10}$
 471499888860 $x^2 y^{10}$
 13617566963 $x^4 y^{10}$
 45531486 $x^6 y^{10}$
 3003 $x^8 y^{10}$

1069394964638 $x^1 y^{10}$
 105846598858 $x^3 y^{10}$
 1042277236 $x^5 y^{10}$
 924924 $x^7 y^{10}$

1084134168117 $x^0 y^{11}$	1145064801244 $x^1 y^{11}$
456409392439 $x^2 y^{11}$	93245279764 $x^3 y^{11}$
10921706796 $x^4 y^{11}$	751374624 $x^5 y^{11}$
28252224 $x^6 y^{11}$	432432 $x^7 y^{11}$
1242061389933 $x^0 y^{12}$	1184436192212 $x^1 y^{12}$
430630715515 $x^2 y^{12}$	80658443229 $x^3 y^{12}$
8636498871 $x^4 y^{12}$	533029497 $x^5 y^{12}$
17048031 $x^6 y^{12}$	192192 $x^7 y^{12}$
1371531407806 $x^0 y^{13}$	1191198914346 $x^1 y^{13}$
398013209594 $x^2 y^{13}$	68719189539 $x^3 y^{13}$
6736704975 $x^4 y^{13}$	370789419 $x^5 y^{13}$
9858849 $x^6 y^{13}$	72072 $x^7 y^{13}$
1468608660882 $x^0 y^{14}$	1170543445137 $x^1 y^{14}$
361633518246 $x^2 y^{14}$	57761638935 $x^3 y^{14}$
5179093920 $x^4 y^{14}$	251927676 $x^5 y^{14}$
5417412 $x^6 y^{14}$	20592 $x^7 y^{14}$
1532265462585 $x^0 y^{15}$	1128111666396 $x^1 y^{15}$
323797042569 $x^2 y^{15}$	47934060174 $x^3 y^{15}$
3919887972 $x^4 y^{15}$	166858692 $x^5 y^{15}$
2822820 $x^6 y^{15}$	3432 $x^7 y^{15}$
1563708257969 $x^0 y^{16}$	1069329637519 $x^1 y^{16}$
286156017147 $x^2 y^{16}$	39278450211 $x^3 y^{16}$
2917732818 $x^4 y^{16}$	107537430 $x^5 y^{16}$
1387386 $x^6 y^{16}$	
1565679515400 $x^0 y^{17}$	999052682628 $x^1 y^{17}$
249853287684 $x^2 y^{17}$	31774172430 $x^3 y^{17}$
2133241110 $x^4 y^{17}$	67225158 $x^5 y^{17}$
630630 $x^6 y^{17}$	
1541840620320 $x^0 y^{18}$	921423805302 $x^1 y^{18}$
215649944510 $x^2 y^{18}$	25362997660 $x^3 y^{18}$
1529748220 $x^4 y^{18}$	40556516 $x^5 y^{18}$
252252 $x^6 y^{18}$	
1496280566781 $x^0 y^{19}$	839862866843 $x^1 y^{19}$
184029335490 $x^2 y^{19}$	19965645700 $x^3 y^{19}$
1074453380 $x^4 y^{19}$	23515492 $x^5 y^{19}$
84084 $x^6 y^{19}$	

1433158500774 $x^0 y^{20}$	757128163792 $x^1 y^{20}$
155275594474 $x^2 y^{20}$	15490962487 $x^3 y^{20}$
738278541 $x^4 y^{20}$	13054041 $x^5 y^{20}$
21021 $x^6 y^{20}$	
1356467420880 $x^0 y^{21}$	675406262960 $x^1 y^{21}$
129525494098 $x^2 y^{21}$	11839943115 $x^3 y^{21}$
495594099 $x^4 y^{21}$	6897891 $x^5 y^{21}$
3003 $x^6 y^{21}$	
1269894402634 $x^0 y^{22}$	596399824527 $x^1 y^{22}$
106800671978 $x^2 y^{22}$	8909359095 $x^3 y^{22}$
324444120 $x^4 y^{22}$	3435432 $x^5 y^{22}$
1176749151513 $x^0 y^{23}$	521400839661 $x^1 y^{23}$
87030639696 $x^2 y^{23}$	6596075850 $x^3 y^{23}$
206666460 $x^4 y^{23}$	1585584 $x^5 y^{23}$
1079936369148 $x^0 y^{24}$	451349135601 $x^1 y^{24}$
70072608606 $x^2 y^{24}$	4801181385 $x^3 y^{24}$
127747620 $x^4 y^{24}$	660660 $x^5 y^{24}$
981954085112 $x^0 y^{25}$	386880341848 $x^1 y^{25}$
55729962288 $x^2 y^{25}$	3433101672 $x^3 y^{25}$
76408332 $x^4 y^{25}$	240240 $x^5 y^{25}$
884906383284 $x^0 y^{26}$	328367364402 $x^1 y^{26}$
43769187462 $x^2 y^{26}$	2409463056 $x^3 y^{26}$
44072028 $x^4 y^{26}$	72072 $x^5 y^{26}$
790523625969 $x^0 y^{27}$	275958142383 $x^1 y^{27}$
33935015114 $x^2 y^{27}$	1658096440 $x^3 y^{27}$
24404380 $x^4 y^{27}$	16016 $x^5 y^{27}$
700186523322 $x^0 y^{28}$	229611607940 $x^1 y^{28}$
25963841904 $x^2 y^{28}$	1117466350 $x^3 y^{28}$
12892880 $x^4 y^{28}$	2002 $x^5 y^{28}$
614952565656 $x^0 y^{29}$	189132884512 $x^1 y^{29}$
19595204629 $x^2 y^{29}$	736505770 $x^3 y^{29}$
6441435 $x^4 y^{29}$	
535584459696 $x^0 y^{30}$	154207623284 $x^1 y^{30}$
14580891325 $x^2 y^{30}$	473927454 $x^3 y^{30}$
3006003 $x^4 y^{30}$	

462580446328 $x^0 y^{31}$	124434590280 $x^1 y^{31}$
10691509829 $x^2 y^{31}$	297170874 $x^3 y^{31}$
1288287 $x^4 y^{31}$	
396206150340 $x^0 y^{32}$	99355444188 $x^1 y^{32}$
7720649937 $x^2 y^{32}$	181170990 $x^3 y^{32}$
495495 $x^4 y^{32}$	
336527315124 $x^0 y^{33}$	78480898860 $x^1 y^{33}$
5487000519 $x^2 y^{33}$	107100630 $x^3 y^{33}$
165165 $x^4 y^{33}$	
283442607812 $x^0 y^{34}$	61312859881 $x^1 y^{34}$
3834855024 $x^2 y^{34}$	61187490 $x^3 y^{34}$
45045 $x^4 y^{34}$	
236715668826 $x^0 y^{35}$	47362446495 $x^1 y^{35}$
2633384754 $x^2 y^{35}$	33639606 $x^3 y^{35}$
9009 $x^4 y^{35}$	
196005653844 $x^0 y^{36}$	36163981854 $x^1 y^{36}$
1774982209 $x^2 y^{36}$	17699682 $x^3 y^{36}$
1001 $x^4 y^{36}$	
160895610876 $x^0 y^{37}$	27285149892 $x^1 y^{37}$
1172969798 $x^2 y^{37}$	8848840 $x^3 y^{37}$
130918149362 $x^0 y^{38}$	20333652339 $x^1 y^{38}$
758957199 $x^2 y^{38}$	4164160 $x^3 y^{38}$
105578004455 $x^0 y^{39}$	14960816948 $x^1 y^{39}$
480088609 $x^2 y^{39}$	1821820 $x^3 y^{39}$
84371266056 $x^0 y^{40}$	10862676748 $x^1 y^{40}$
296364068 $x^2 y^{40}$	728728 $x^3 y^{40}$
66801206472 $x^0 y^{41}$	7779055284 $x^1 y^{41}$
178161984 $x^2 y^{41}$	260260 $x^3 y^{41}$
52390784160 $x^0 y^{42}$	5491167682 $x^1 y^{42}$
104037934 $x^2 y^{42}$	80080 $x^3 y^{42}$
40692014649 $x^0 y^{43}$	3818196382 $x^1 y^{43}$
58832774 $x^2 y^{43}$	20020 $x^3 y^{43}$

31292482221 $x^0 y^{44}$ 32096064 $x^2 y^{44}$	2613238992 $x^1 y^{44}$ 3640 $x^3 y^{44}$
23819322891 $x^0 y^{45}$ 16812796 $x^2 y^{45}$	1758964480 $x^1 y^{45}$ 364 $x^3 y^{45}$
17941045759 $x^0 y^{46}$ 8406398 $x^2 y^{46}$	1163250452 $x^1 y^{46}$
13367576222 $x^0 y^{47}$ 3981978 $x^2 y^{47}$	755008254 $x^1 y^{47}$
9848901062 $x^0 y^{48}$ 1769768 $x^2 y^{48}$	480339860 $x^1 y^{48}$
7172674938 $x^0 y^{49}$ 728728 $x^2 y^{49}$	299114816 $x^1 y^{49}$
5161114530 $x^0 y^{50}$ 273273 $x^2 y^{50}$	182008827 $x^1 y^{50}$
3667464801 $x^0 y^{51}$ 91091 $x^2 y^{51}$	108008901 $x^1 y^{51}$
2572275629 $x^0 y^{52}$ 26026 $x^2 y^{52}$	62363378 $x^1 y^{52}$
1779679979 $x^0 y^{53}$ 6006 $x^2 y^{53}$	34937826 $x^1 y^{53}$
1213819607 $x^0 y^{54}$ 1001 $x^2 y^{54}$	18927909 $x^1 y^{54}$
815522708 $x^0 y^{55}$ 91 $x^2 y^{55}$	9875957 $x^1 y^{55}$
539300996 $x^0 y^{56}$	4938024 $x^1 y^{56}$
350702300 $x^0 y^{57}$	2351440 $x^1 y^{57}$
224029260 $x^0 y^{58}$	1058148 $x^1 y^{58}$
140415093 $x^0 y^{59}$	445536 $x^1 y^{59}$
86233329 $x^0 y^{60}$	173264 $x^1 y^{60}$

51809303 $x^0 y^{61}$	61152 $x^1 y^{61}$
30396275 $x^0 y^{62}$	19110 $x^1 y^{62}$
17377490 $x^0 y^{63}$	5096 $x^1 y^{63}$
9656426 $x^0 y^{64}$	1092 $x^1 y^{64}$
5200118 $x^0 y^{65}$	168 $x^1 y^{65}$
2704142 $x^0 y^{66}$	14 $x^1 y^{66}$
1352078 $x^0 y^{67}$	
646646 $x^0 y^{68}$	
293930 $x^0 y^{69}$	
125970 $x^0 y^{70}$	
50388 $x^0 y^{71}$	
18564 $x^0 y^{72}$	
6188 $x^0 y^{73}$	
1820 $x^0 y^{74}$	
455 $x^0 y^{75}$	
91 $x^0 y^{76}$	
13 $x^0 y^{77}$	
1 $x^0 y^{78}$	

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Number of spanning trees: st = 56693912375296
TEST: tutteMat[ONE][ZERO]==tutteMat[ZERO][ONE] passed
TEST: tutteMat[TWO][ZERO]-tutteMat[ONE][ONE]+tutteMat[ZERO][TWO]==tutteMat[ONE][ZERO] passed
TEST: tutteMat[3][0]-tutteMat[2][1]+tutteMat[1][2]-tutteMat[0][3]==tutteMat[1][1] - 2*tutteMat[0][1] passed
threshold  graphs  matches  ratio
    14         1         0     0.00
    13        13         0     0.00
    12        23        211    9.17
    11        40        466   11.65
    10        53        866   16.34
     9        62       1241   20.02
     8        67       1522   22.72
total       259       4306   16.63
8.88u 0.17s 0:30.60 29.5%

```