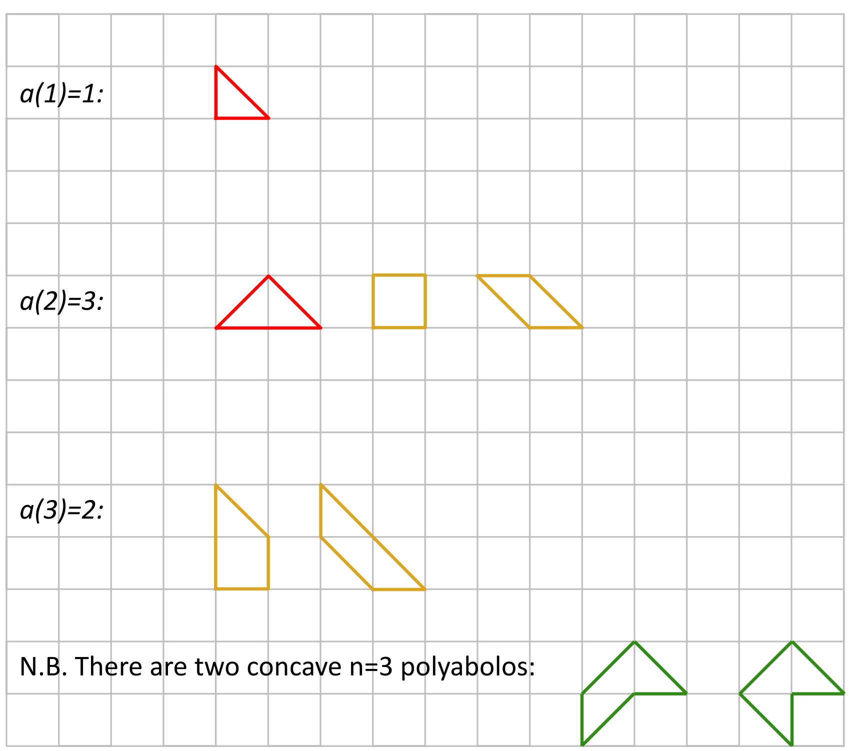
Convex Polyabolos

a(n)=number of different convex polygons that can be formed by joining *n* congruent isosceles right triangles edge-to-edge.

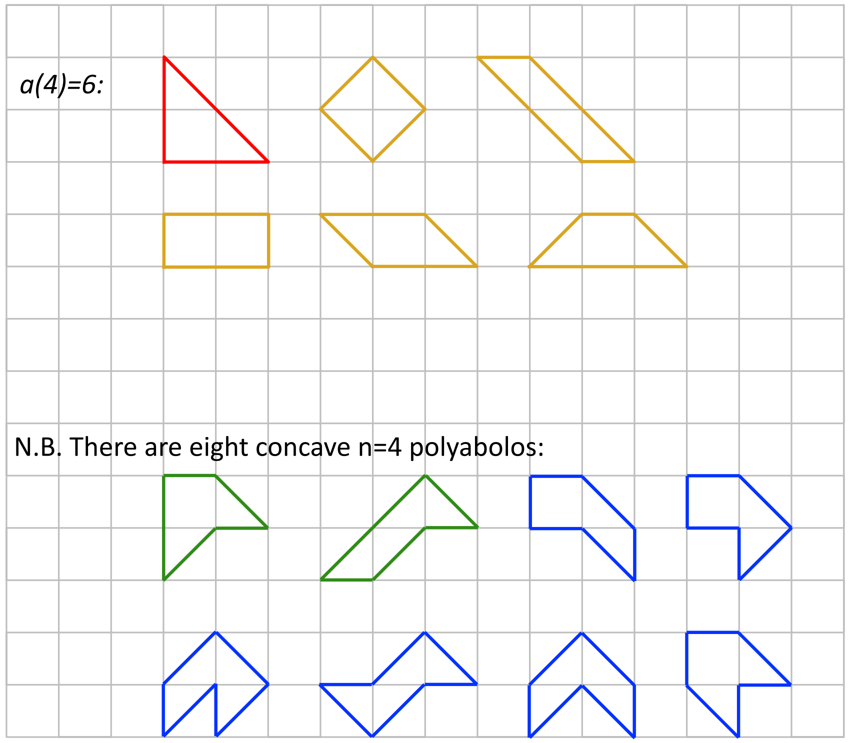
Illustration for *n=1* to *20*, colored according to number of sides:

Douglas J. Durian (University of Pennsylvania, Department of Physics & Astronomy)

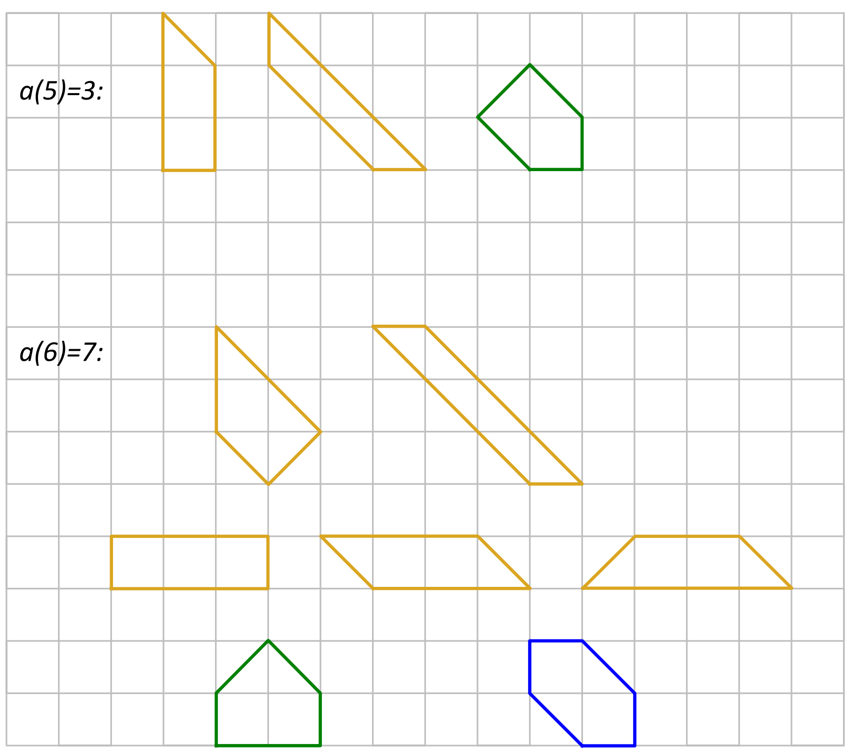
n = 1, 2, 3



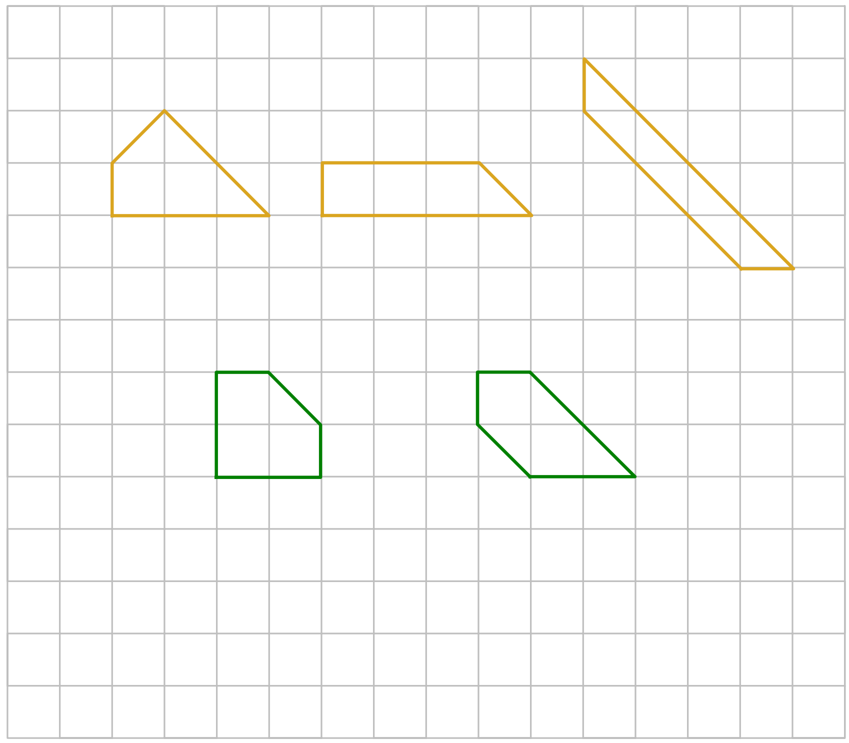
n = 4



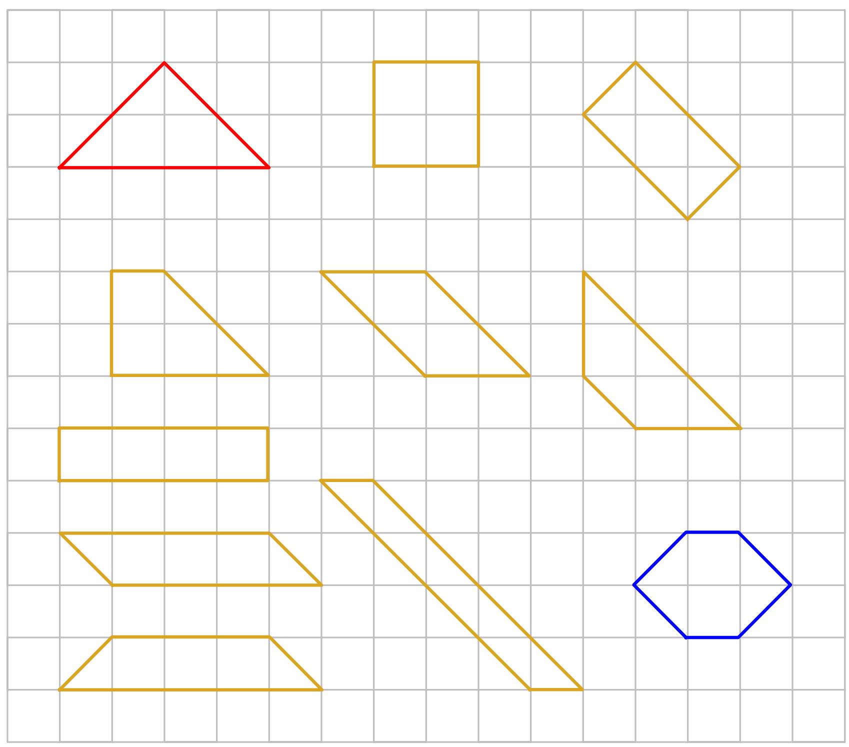
n = 5, 6



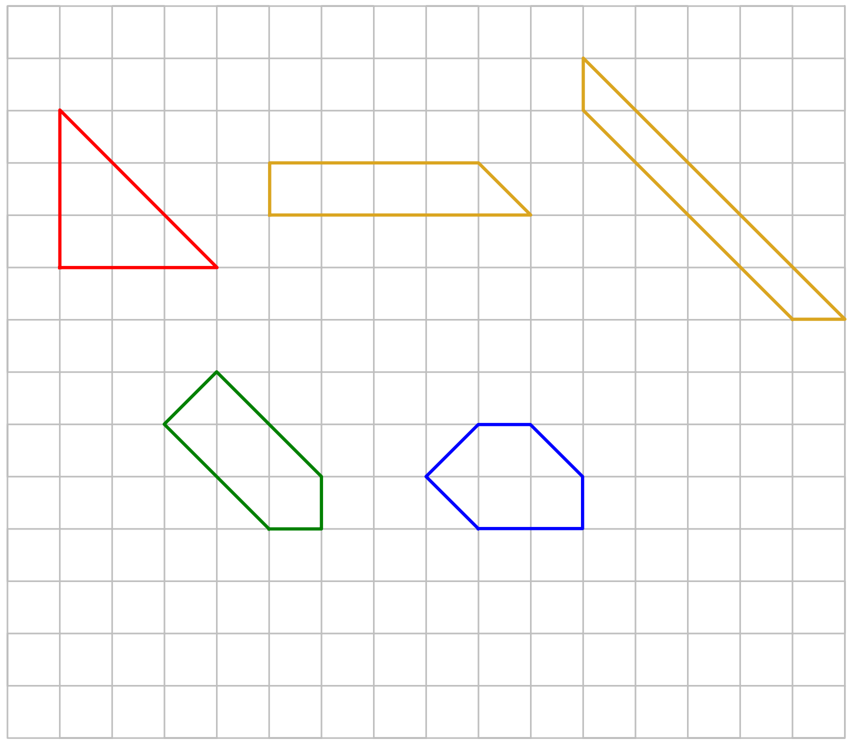
$a(7) = 5$



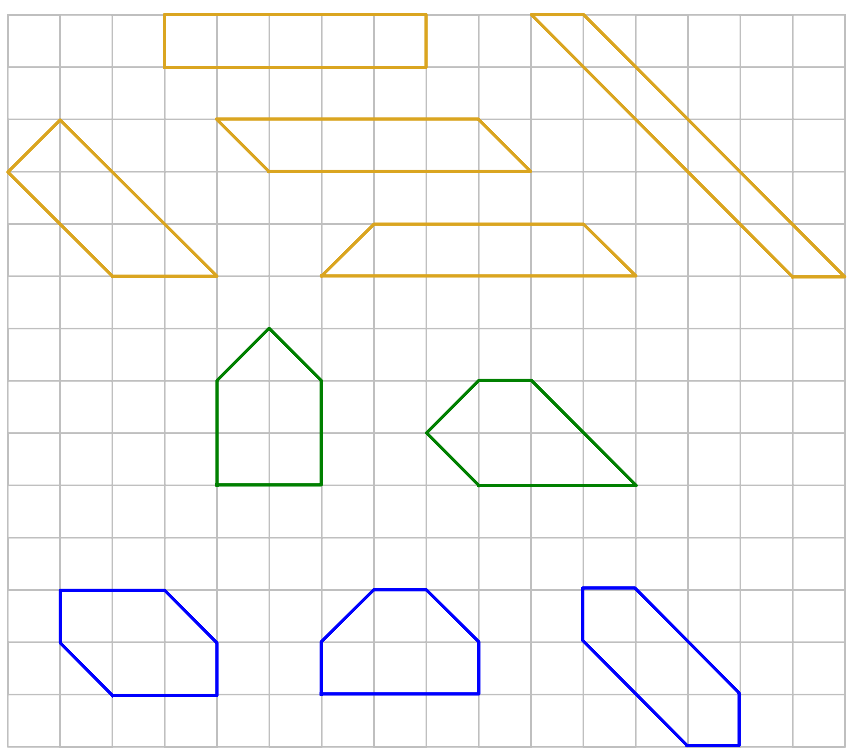
$a(8) = 11$



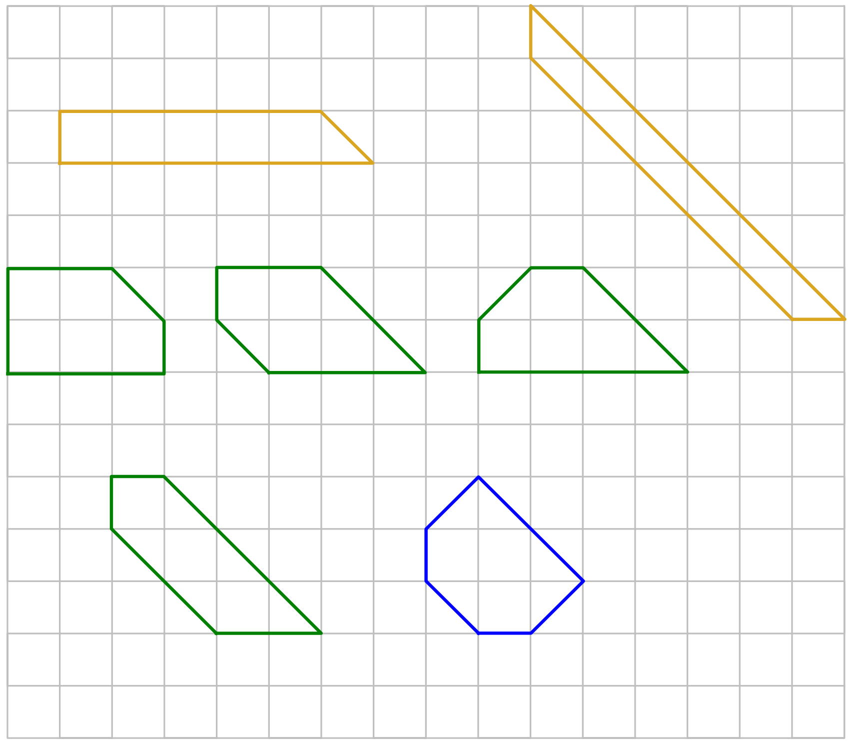
$a(9) = 5$



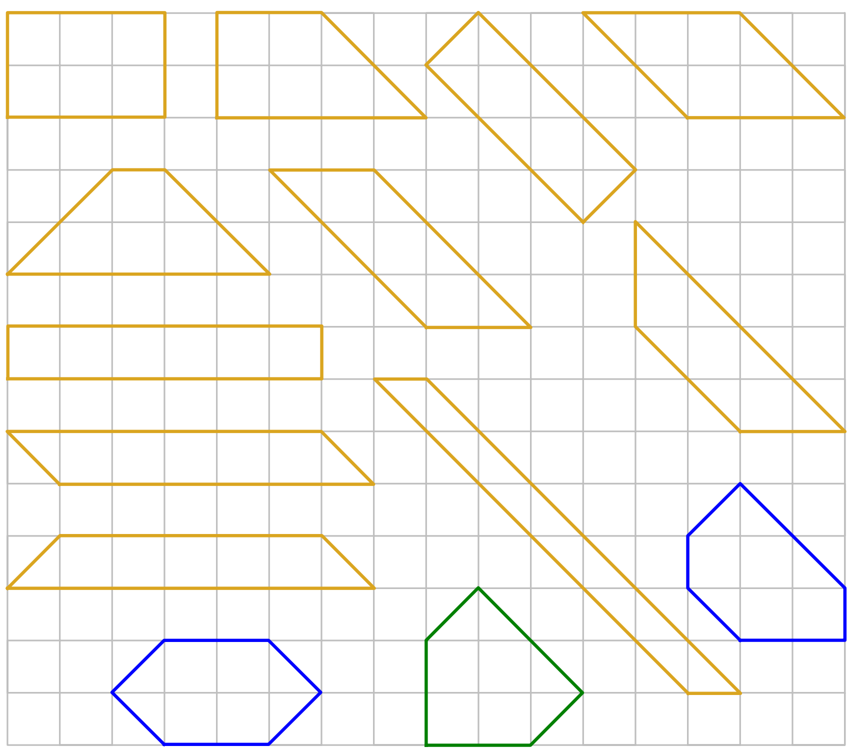
$a(10) = 10$



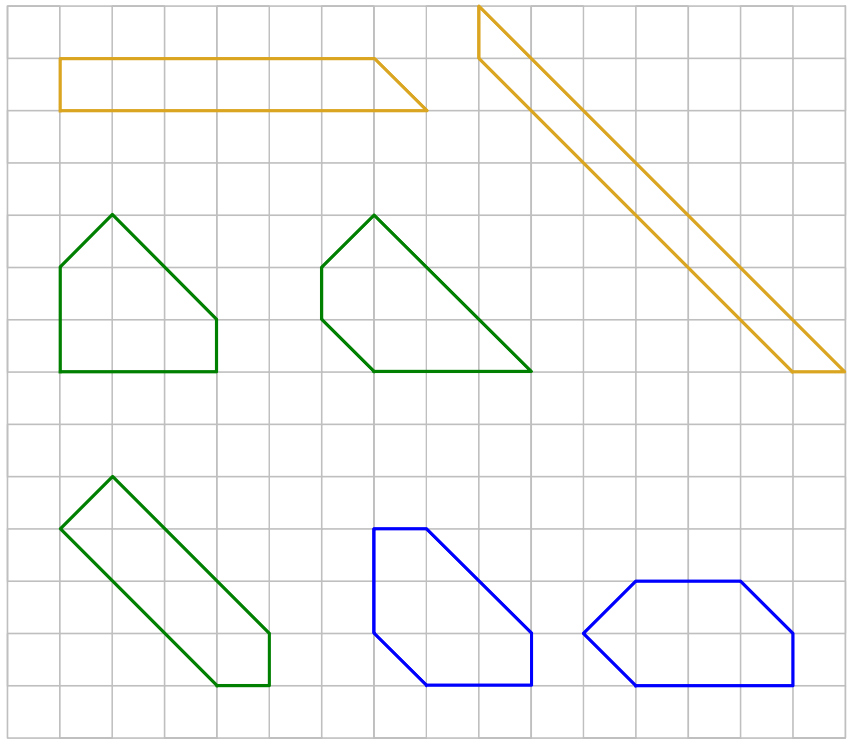
$a(11) = 7$



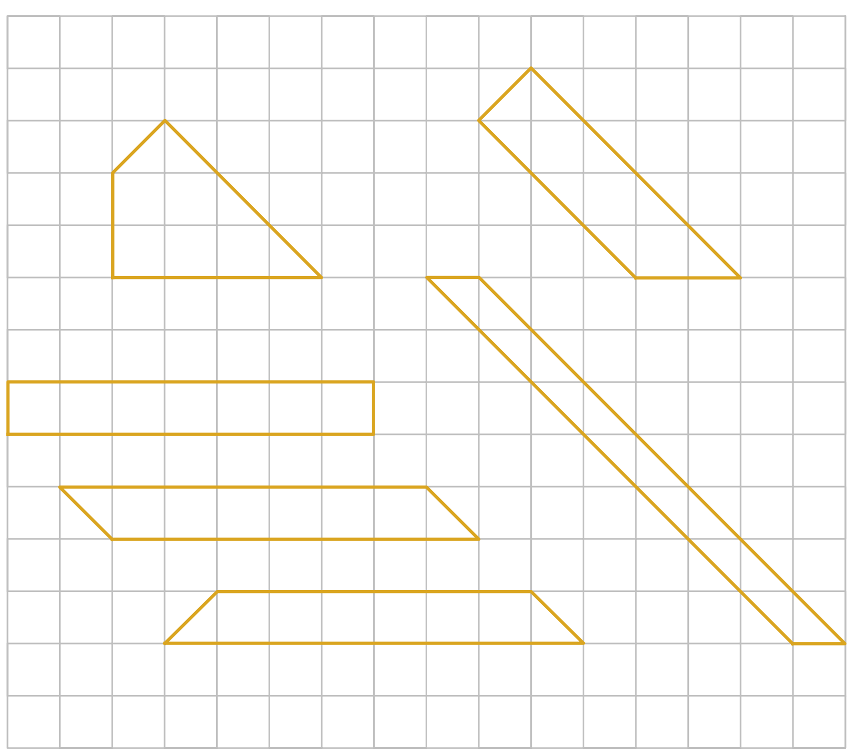
$a(12) = 14$



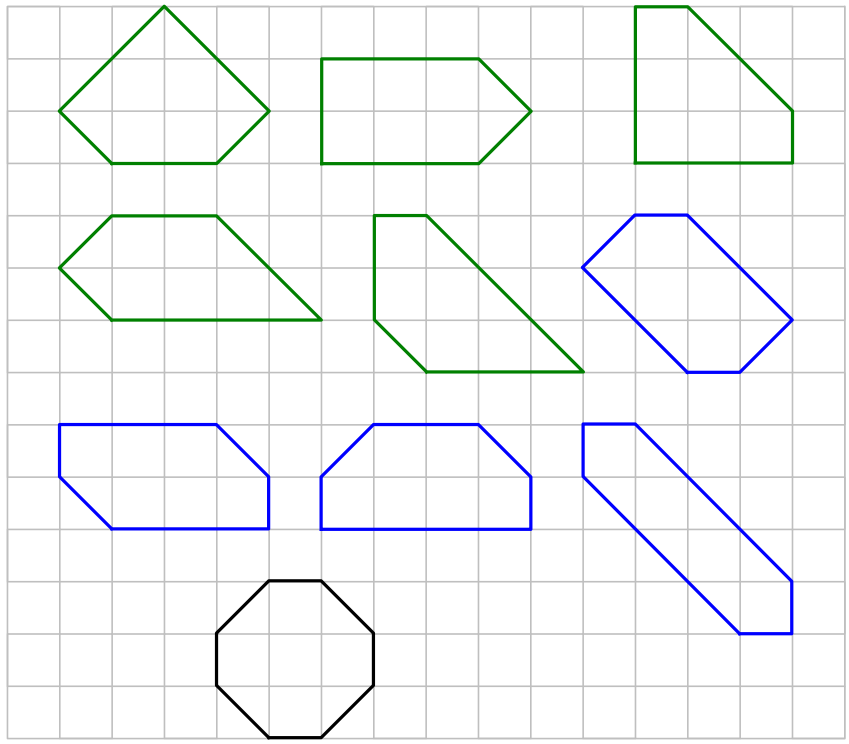
$a(13) = 7$



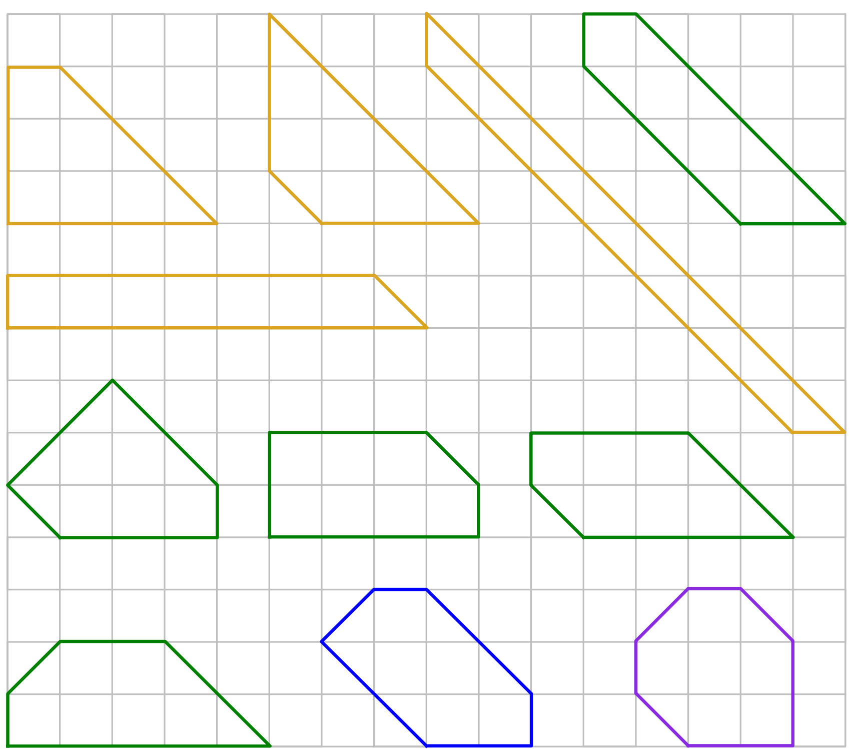
$a(14) = 16$



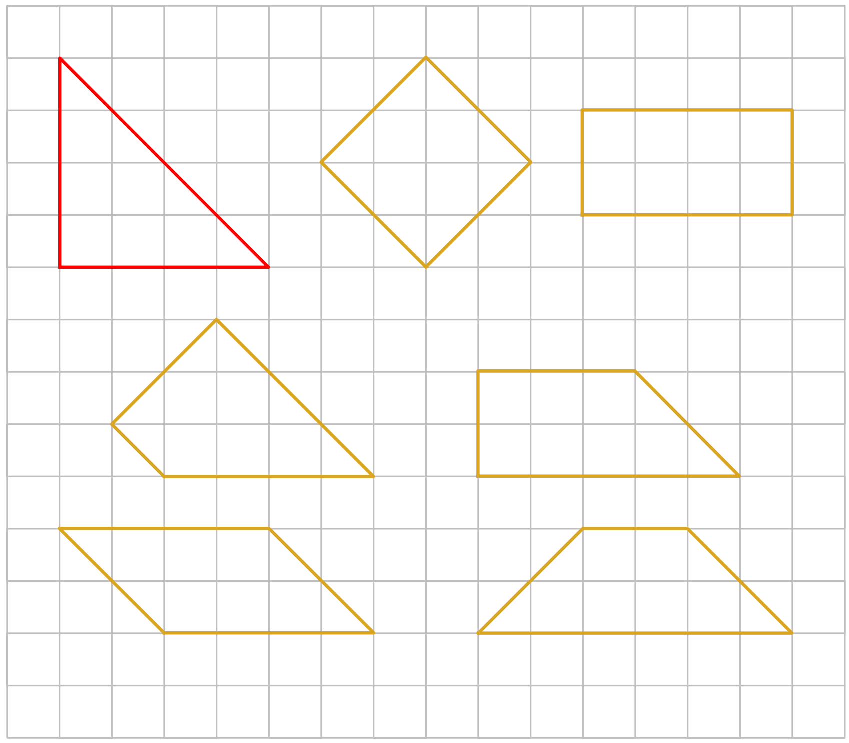
n = 14 (continued)



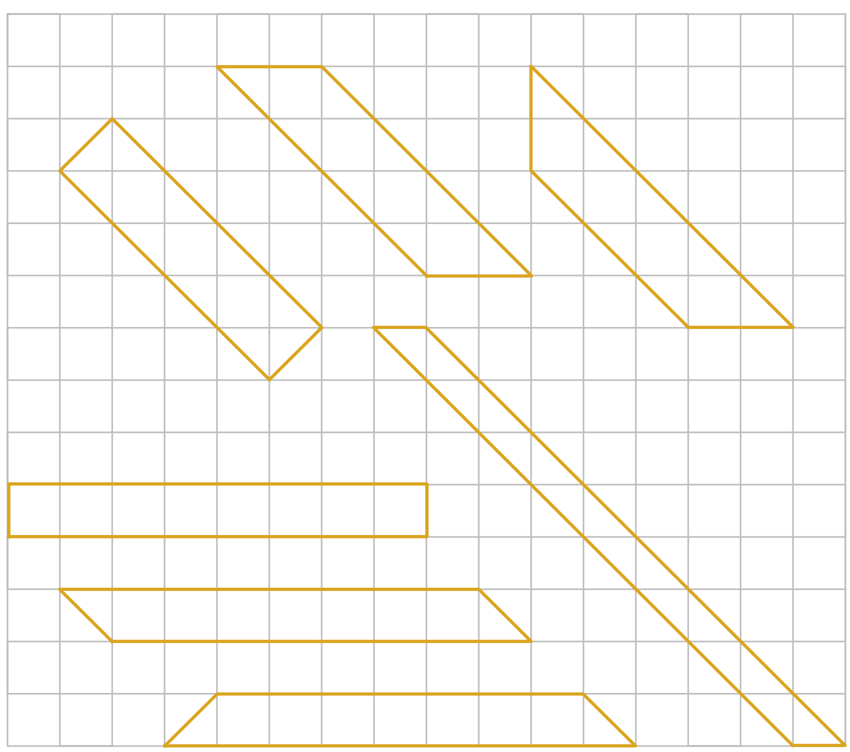
a(15) = 11



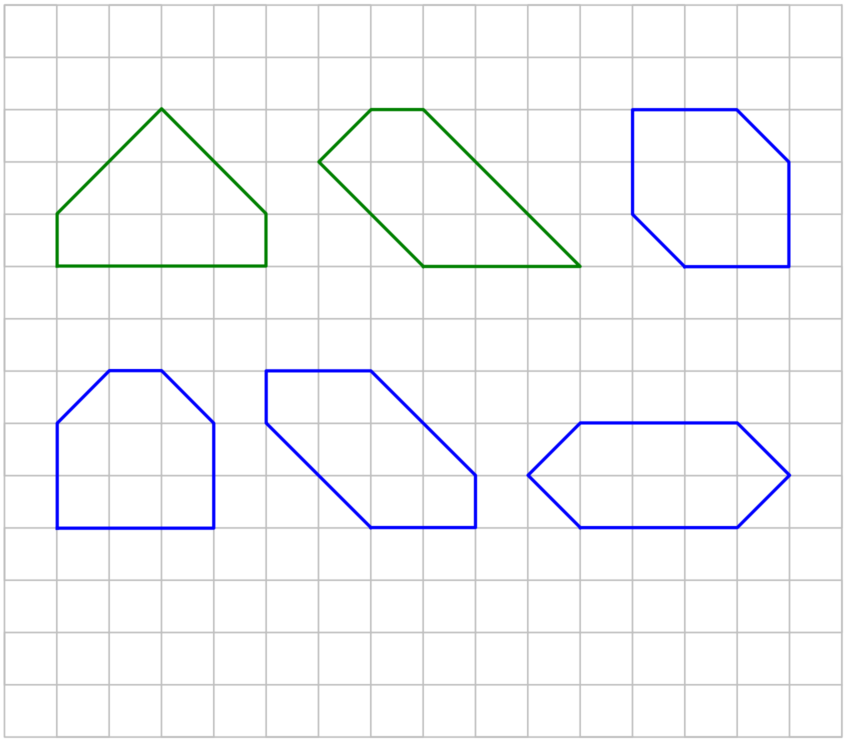
a(16) = 20



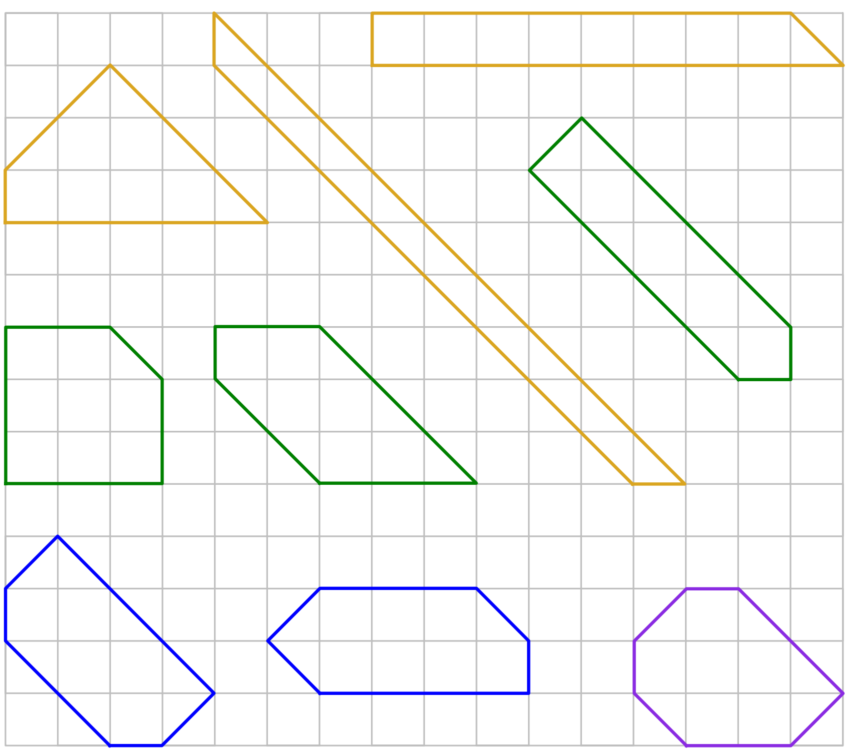
n = 16 (continued)



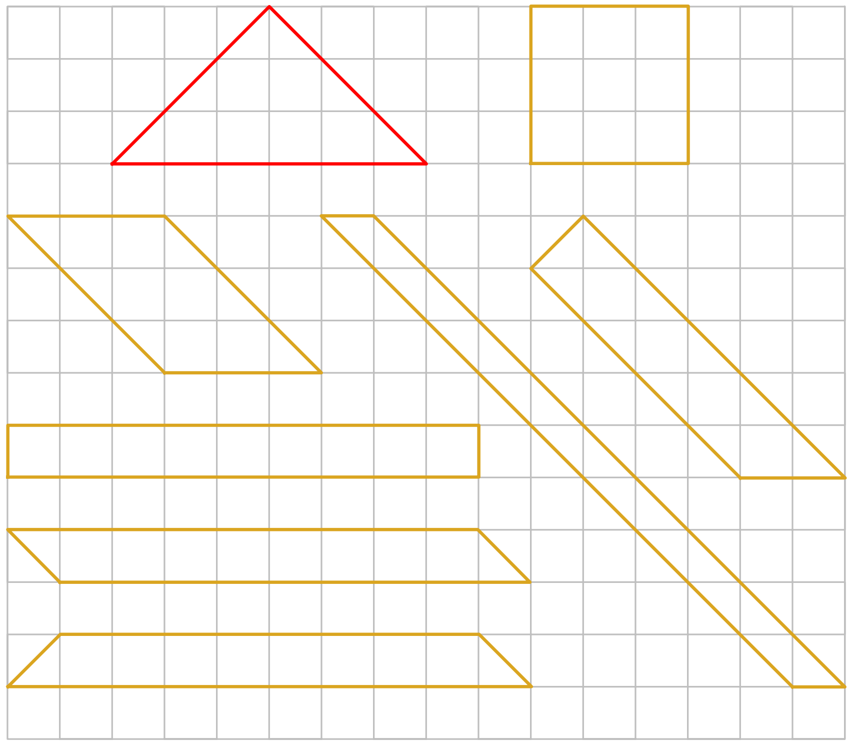
$n = 16$ (continued)



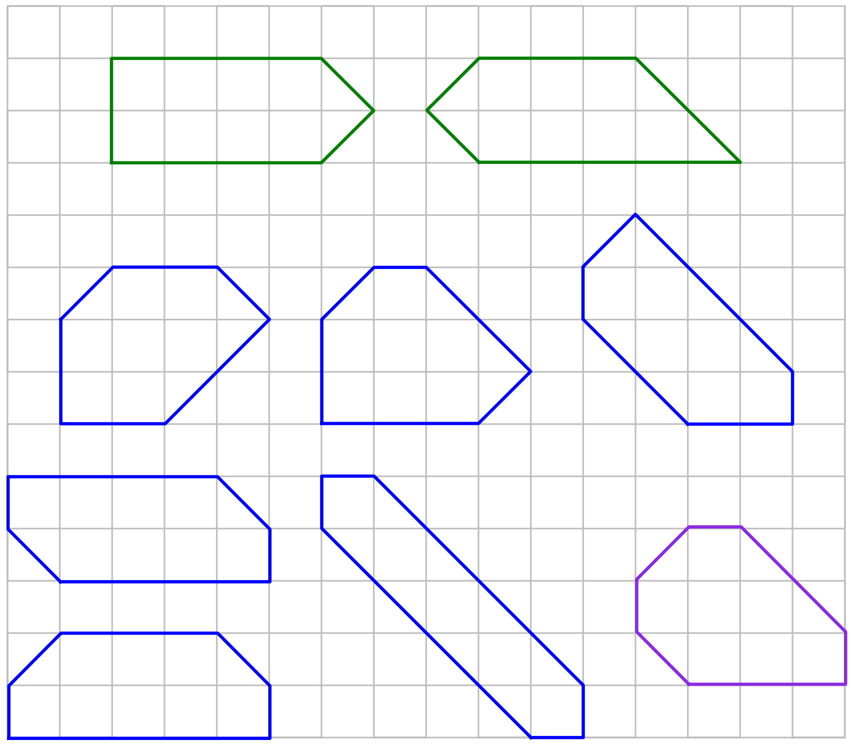
$a(17) = 9$



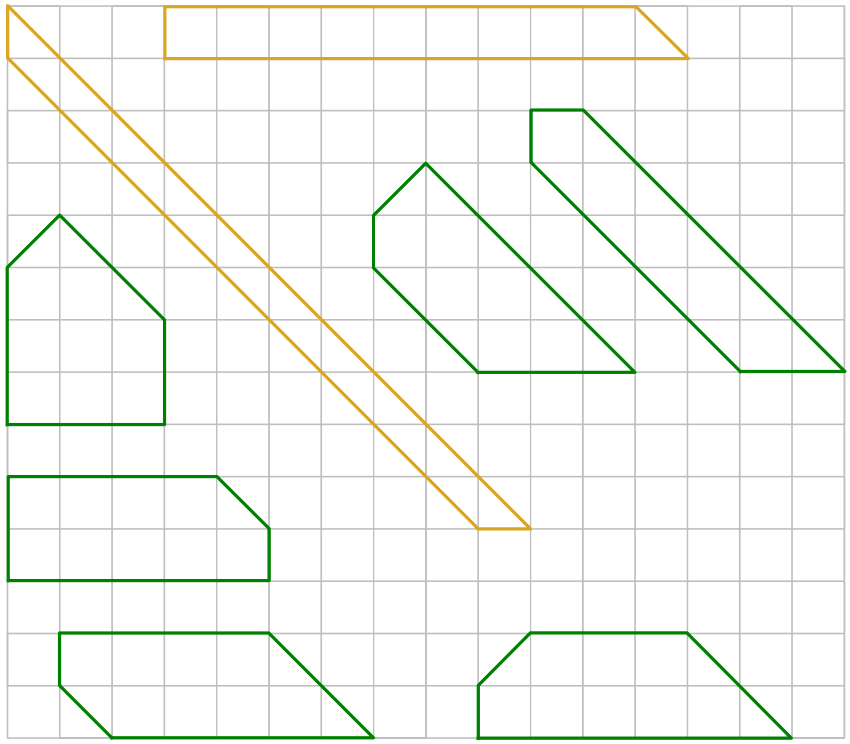
$a(18) = 17$



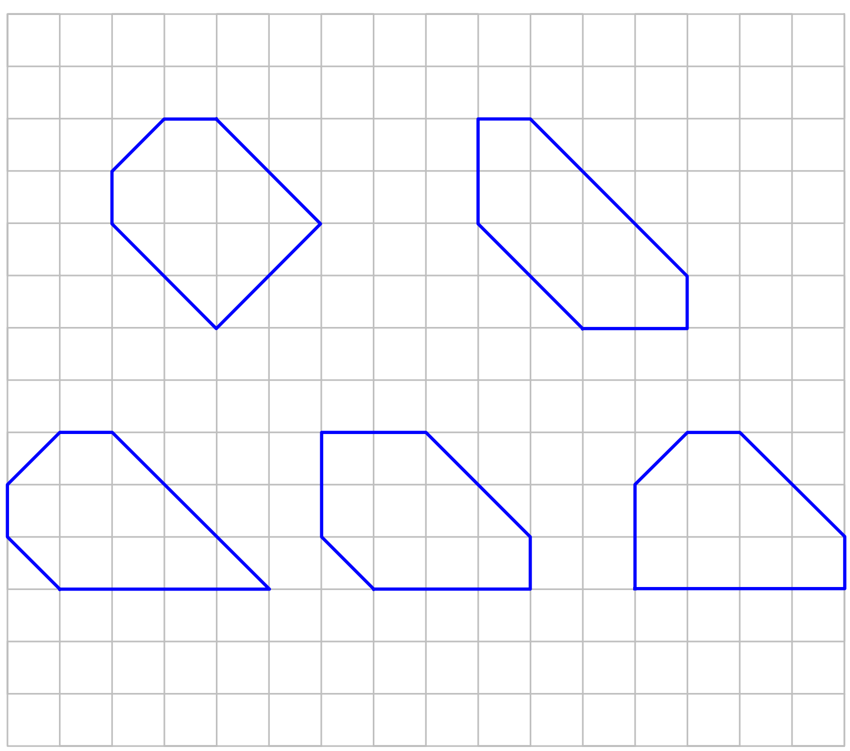
$n = 18$ (continued)



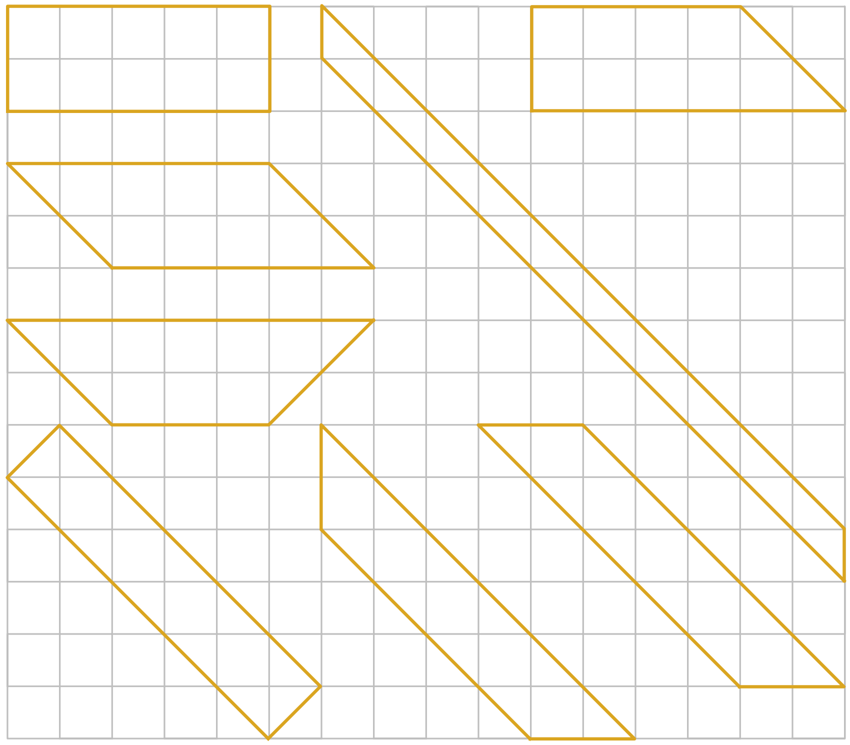
a(19) = 13



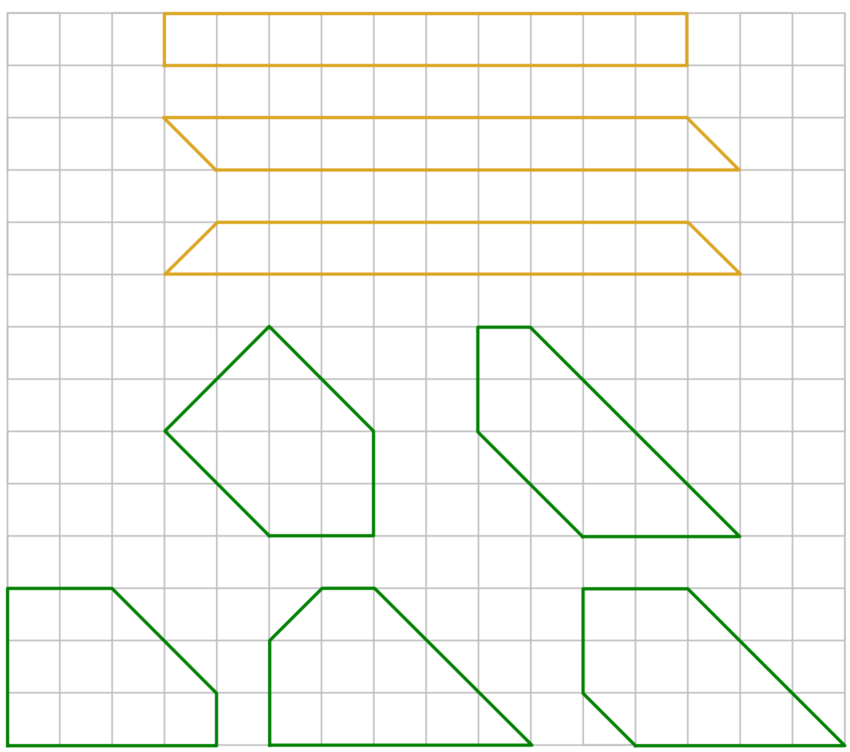
n = 19 (continued)



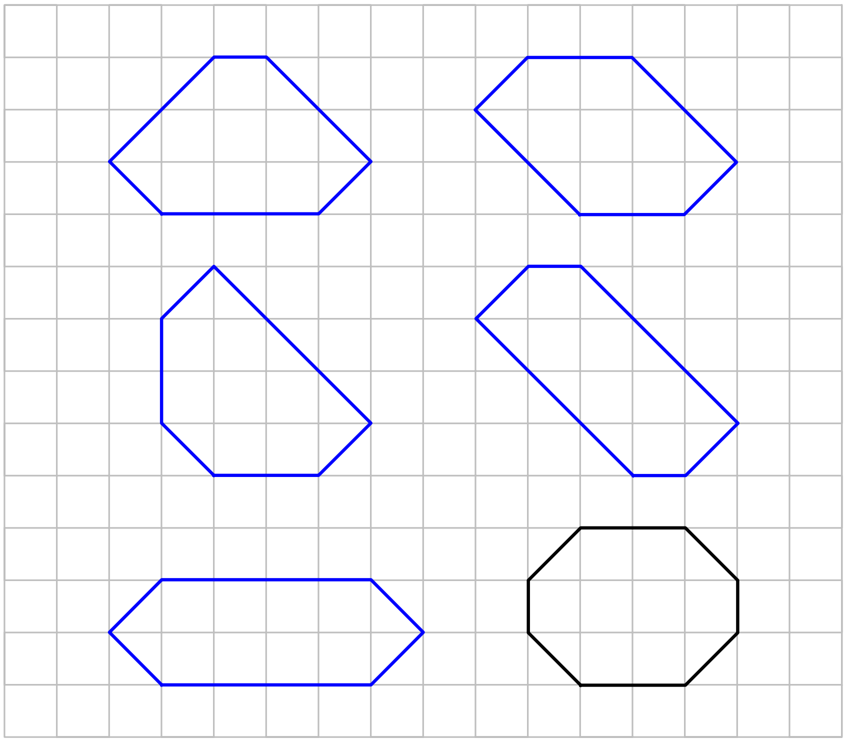
a(20) = 22



n = 20 (continued)



n = 20 (continued)



Size	Convex Polyabolos	3-sided	4-sided	5-sided	6-sided	7-sided	8-sided
1	1	1	0	0	0	0	0
2	3	1	2	0	0	0	0
3	2	0	2	0	0	0	0
4	6	1	5	0	0	0	0
5	3	0	2	1	0	0	0
6	7	0	5	1	1	0	0
7	5	0	3	2	0	0	0
8	11	1	9	0	1	0	0
9	5	1	2	1	1	0	0
10	10	0	5	2	3	0	0
11	7	0	2	4	1	0	0
12	14	0	11	1	2	0	0
13	7	0	2	3	2	0	0
14	16	0	6	5	4	0	1
15	11	0	4	5	1	1	0
16	20	1	13	2	4	0	0
17	9	0	3	3	2	1	0
18	17	1	7	2	6	1	0
19	13	0	2	6	5	0	0
20	22	0	11	5	5	0	1
21	12	0	4	2	5	1	0
22	25	0	5	8	10	1	1
23	18	0	3	11	2	2	0
24	27	0	19	1	6	1	0
25	14	1	2	3	6	1	1
26	24	0	5	7	8	3	1
27	20	0	4	6	8	2	0
28	31	0	12	7	10	1	1
29	18	0	2	6	7	3	0
30	36	0	10	7	14	2	3
31	26	0	3	13	7	3	0
32	37	1	17	7	10	1	1