

KNIGHT'S POLYGONS

**THIS IS *NOT* AN
ANCIENT
CHALLENGE**

**WHAT IS A
POLYGON?**

- a closed figure
- made up of straight sides
- that do not cross

**IT WAS DEVELOPED BY THE
MATHLETES IN 2004 AFTER
BEING INTRODUCED TO
KNIGHT'S TOURS**

1. To create a Knight's Polygon, move on a 8x8 grid as a knight would move from the center of each square.
2. Create a polygon with the most number of sides possible.
3. If you get stuck, erase a few sides until you can keep going.

NOTE: The current world record is a 28-sided knight's polygon held by Michael Kramer. We still are looking for a 29-gon.

Polygon Names

Generally accepted names

SidesName

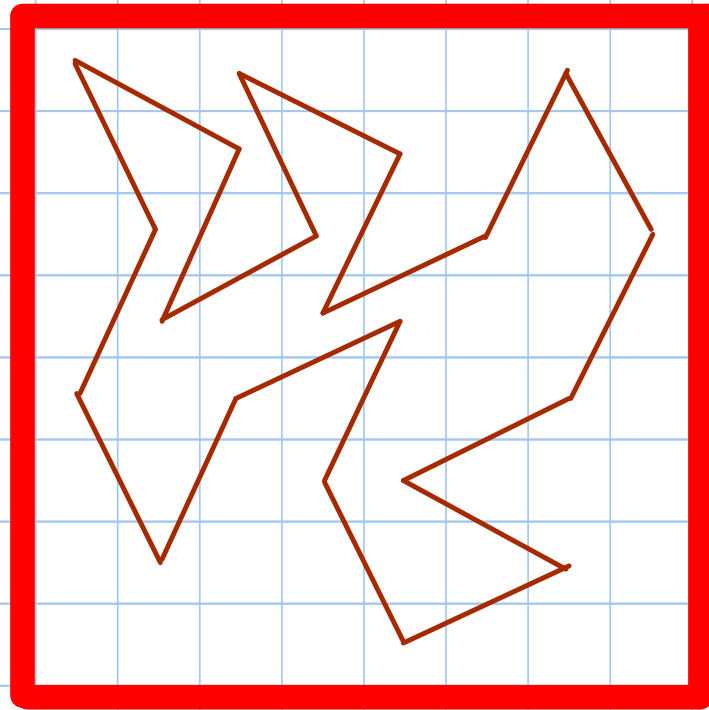
n	N-gon
3	Triangle
4	Quadrilateral
5	Pentagon
6	Hexagon
7	Heptagon
8	Octagon
10	Decagon
12	Dodecagon

Names for other polygons have been proposed.

SidesName

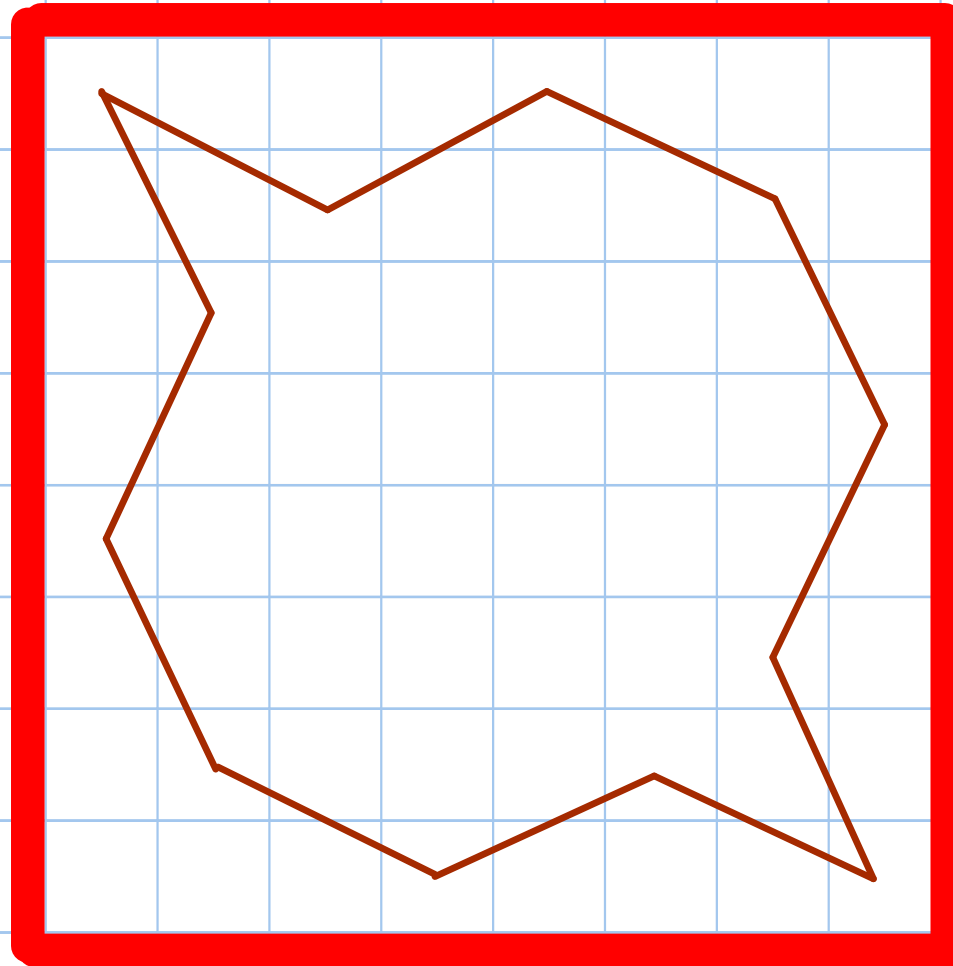
9	Nonagon, Enneagon
11	Undecagon, Hendecagon
13	Tridecagon, Triskaidecagon
14	Tetradecagon, Tetrakaidecagon
15	Pentadecagon, Pentakaidecagon
16	Hexadecagon, Hexakaidecagon
17	Heptadecagon, Heptakaidecagon
18	Octadecagon, Octakaidecagon
19	Enneadecagon, Enneakaidecagon
20	Icosagon
30	Triacontagon
40	Tetracontagon
50	Pentacontagon
60	Hexacontagon
70	Heptacontagon
80	Octacontagon
90	Enneacontagon
100	Hectogon, Hecatontagon
1,000	Chiliagon
10,000	Myriagon

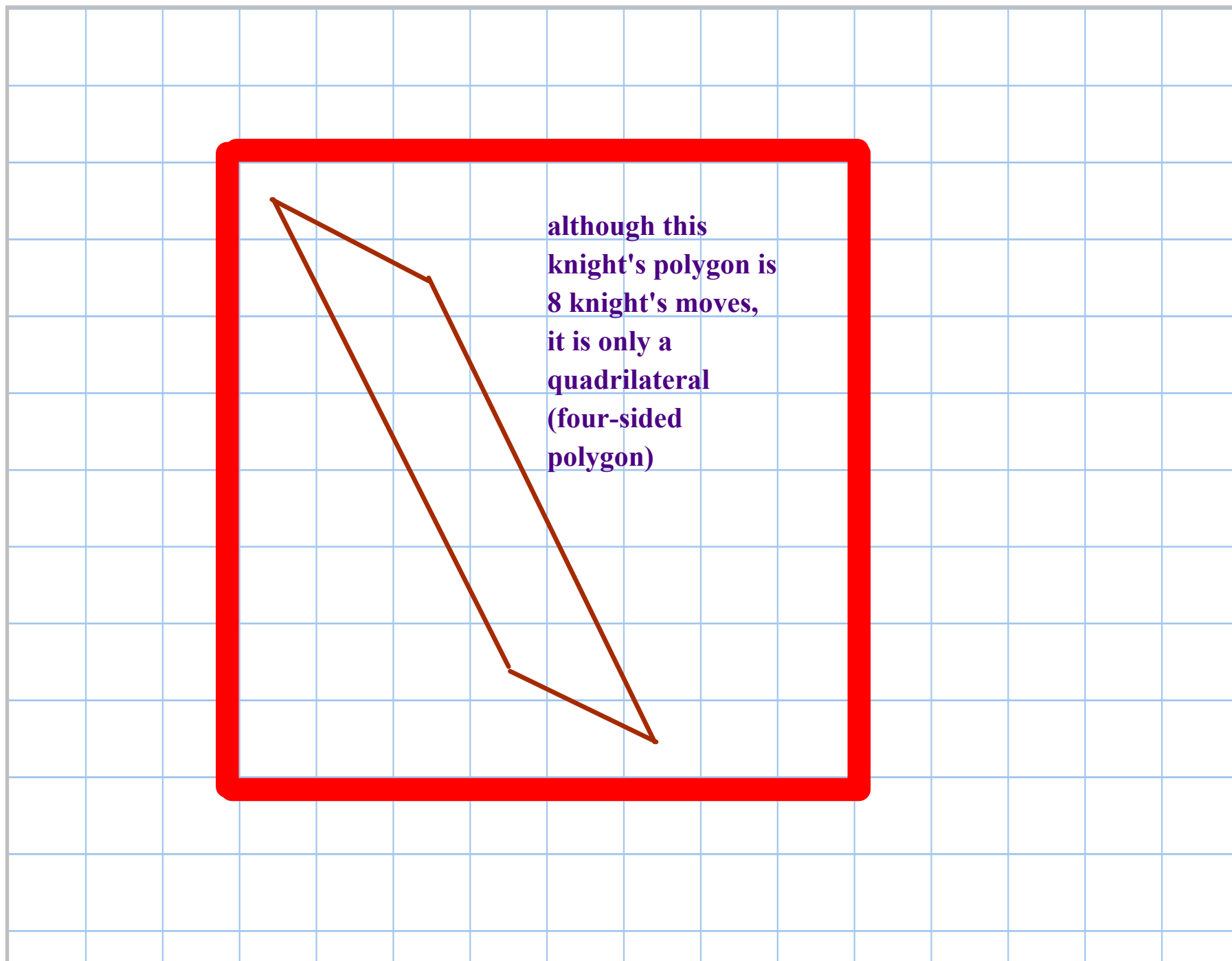
20-gon knight's polygon



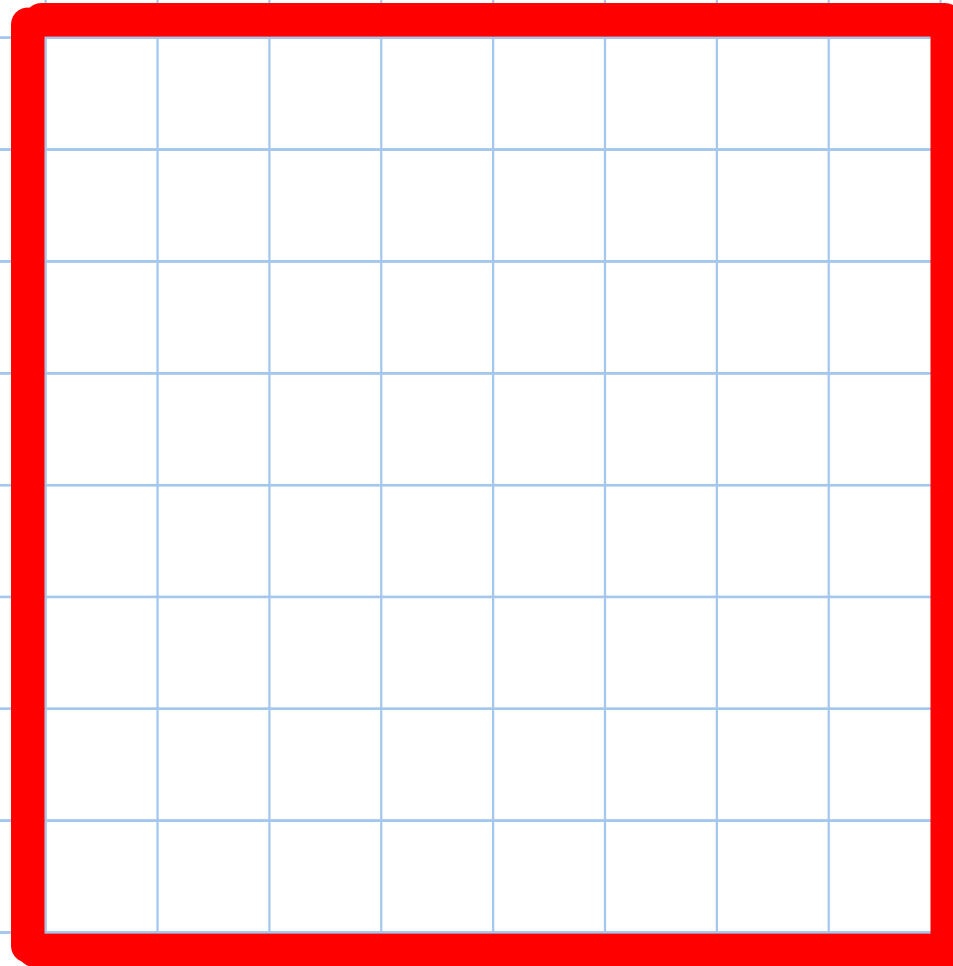
NOTE: make a dot in the center of a square and a dot in center of a square one knight's move away; then draw a segment from one dot to the other

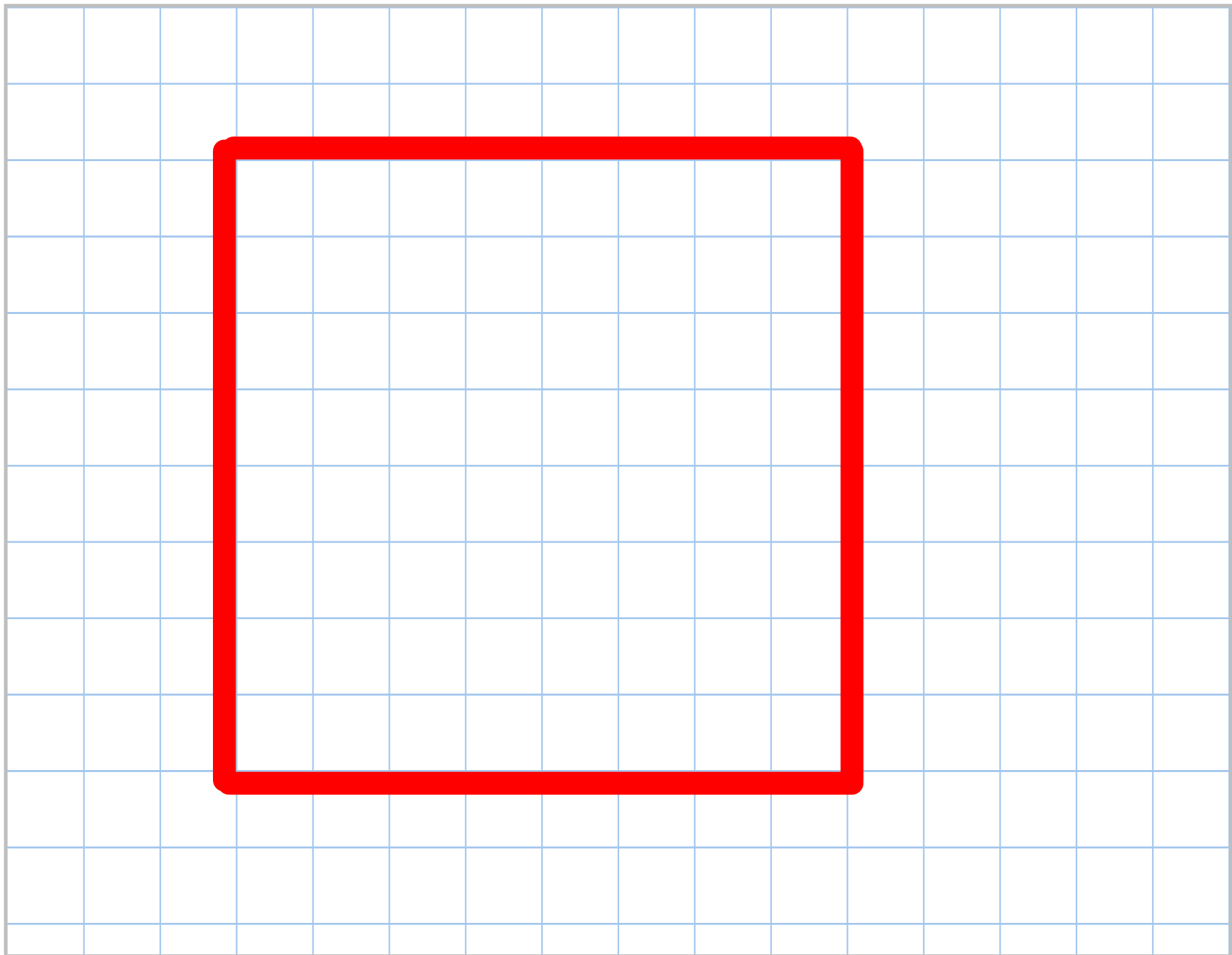
dodecagon (12 sided polygon)



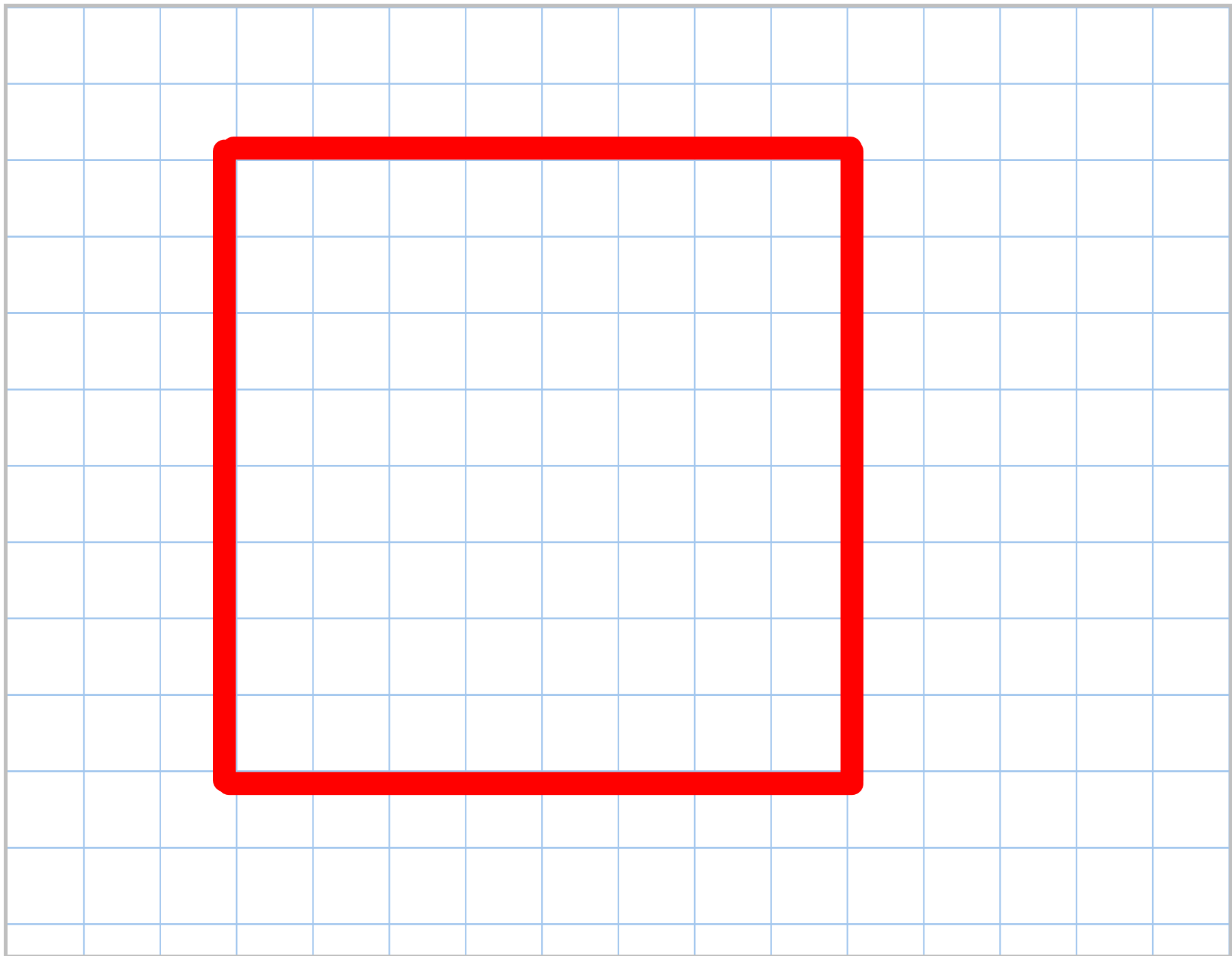


NOW, TRY SOME YOURSELF (Michael's 28-gon is on the last page of this file)

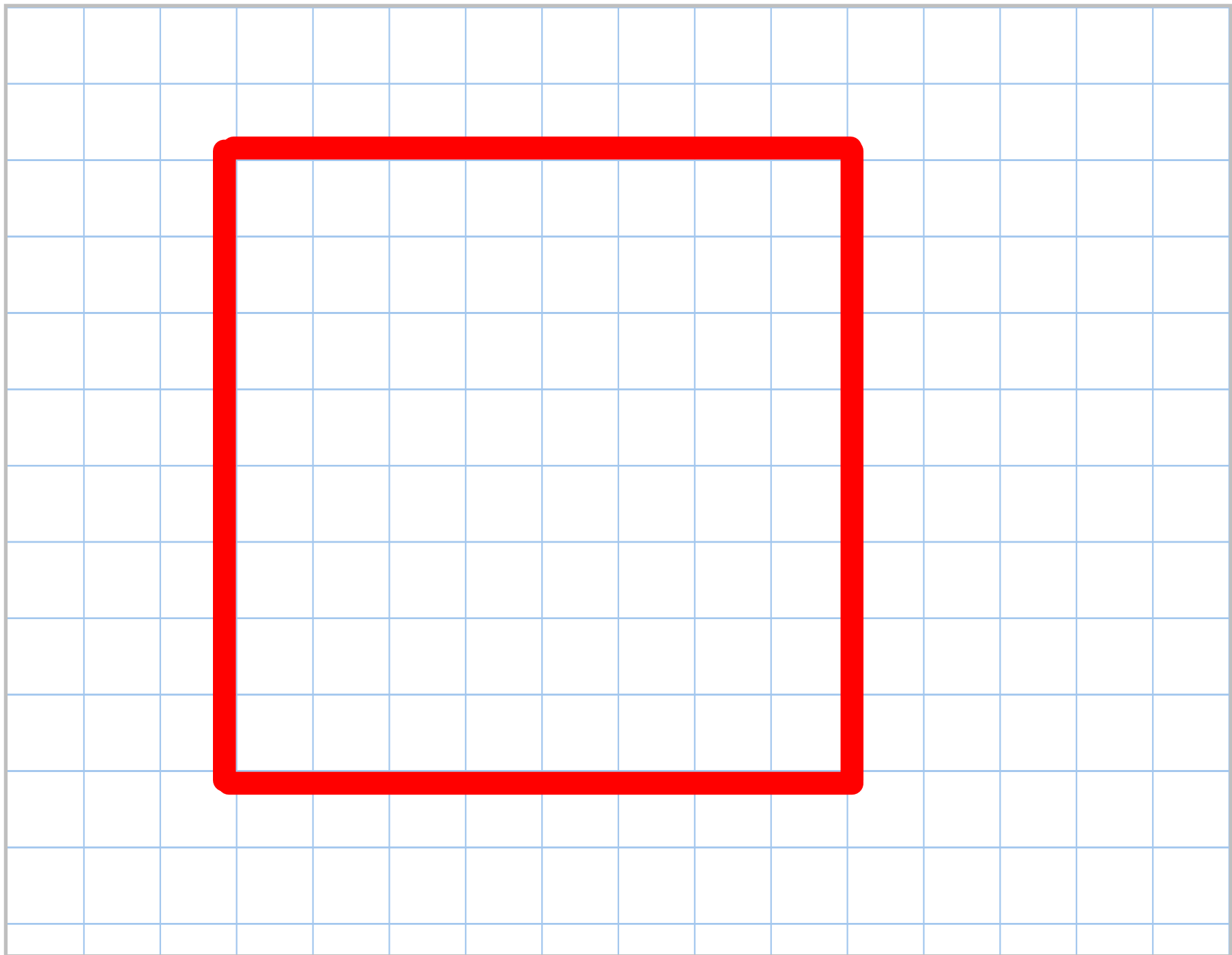




Title: Grid - large (7 of 10)



Title: Grid - large (8 of 10)



Title: Grid - large (9 of 10)

Michael's 28-gon; let's try for 29

