

Math 280: Graph Theory
Instructor: David Zureick-Brown (“DZB”)
GODY’s! (Graph Of The Day)

Last updated: November 18, 2024

Part 1 of the GODY’s is here: <https://dmzb.github.io/teaching/2024Fall280/gody-F24-280.pdf>

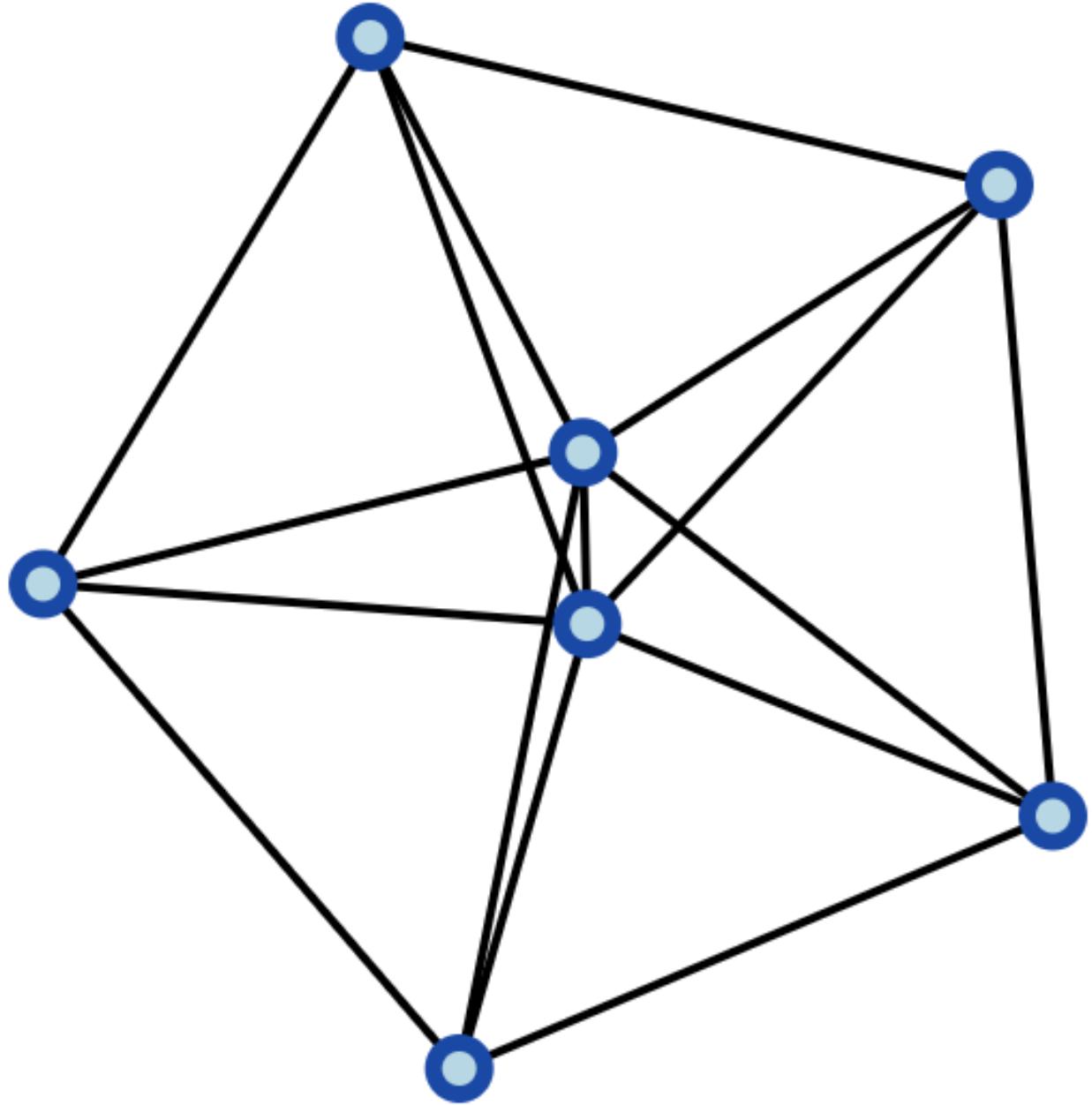
Part 2 of the GODY’s is here: <https://dmzb.github.io/teaching/2024Fall280/gody-F24-280-1.pdf>

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17 House of Graphs

<https://houseofgraphs.org/graphs/26>

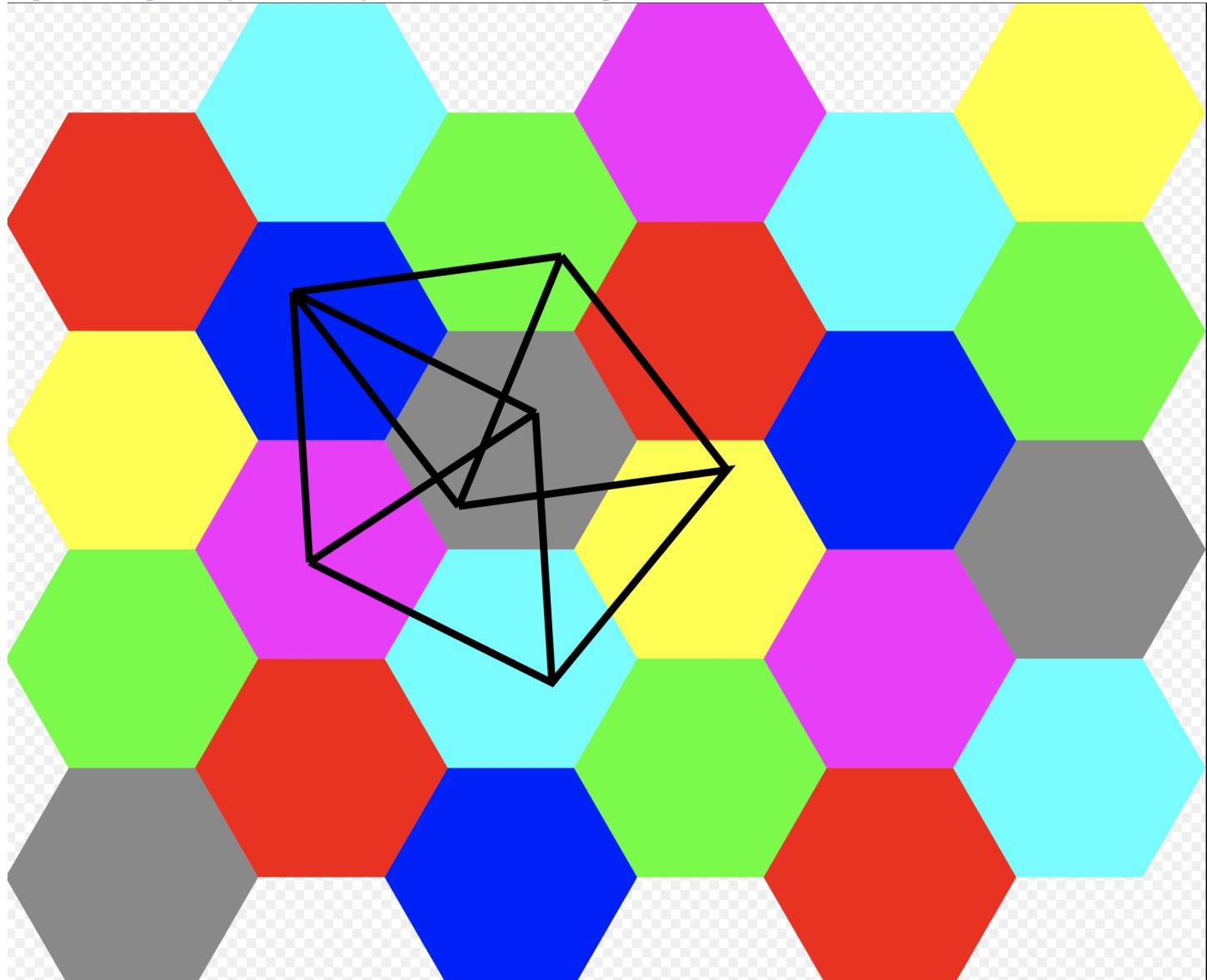






18 The Chromatic number of the plane

https://en.wikipedia.org/wiki/Hadwiger%20Nelson_problem



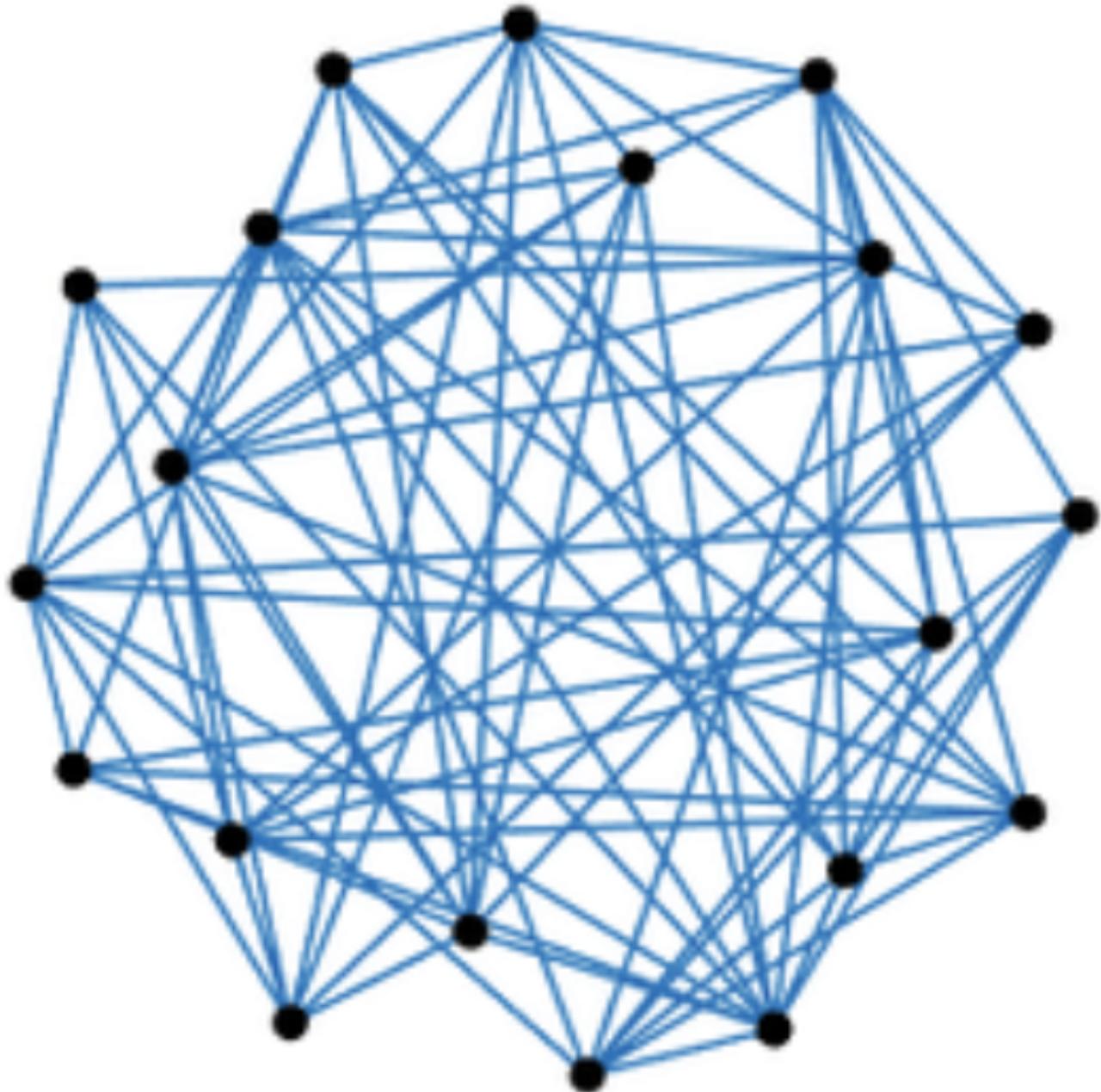


Alexander Prize

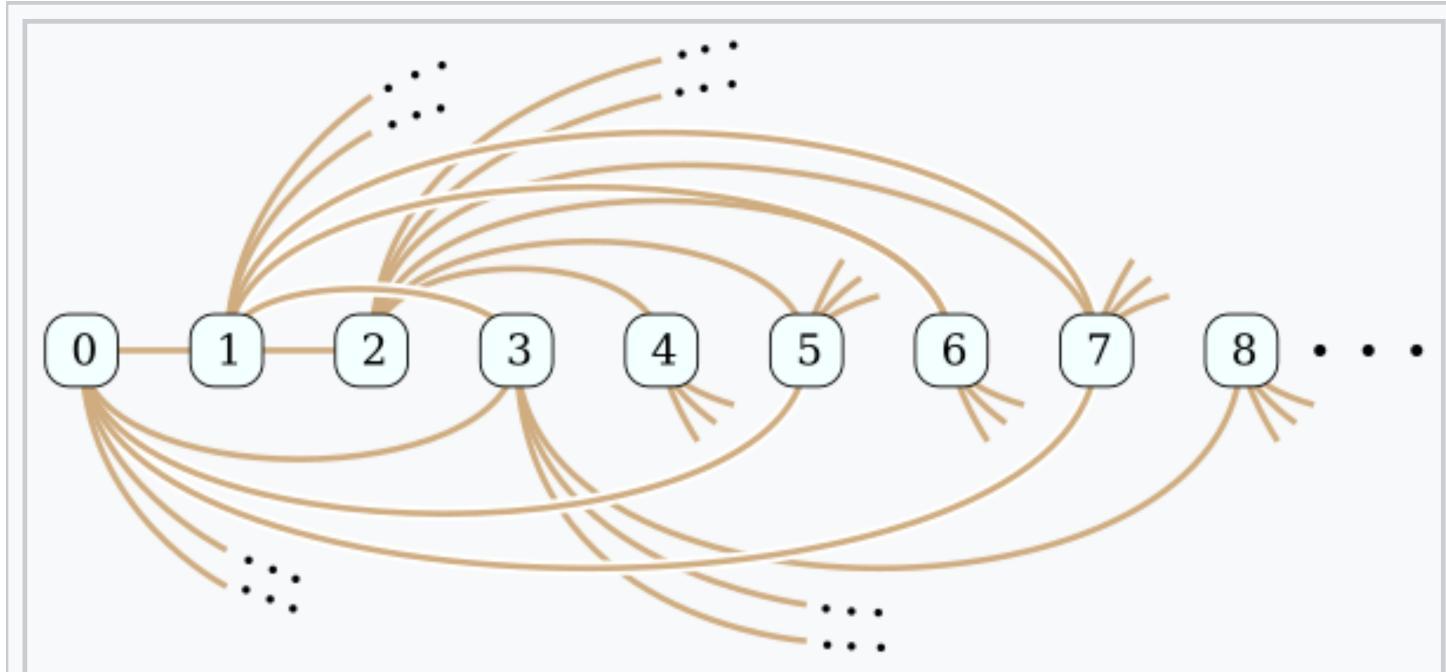


19 Random Graphs

https://dshizuka.github.io/networkanalysis/09_randomnets.html



https://en.wikipedia.org/wiki/Rado_graph







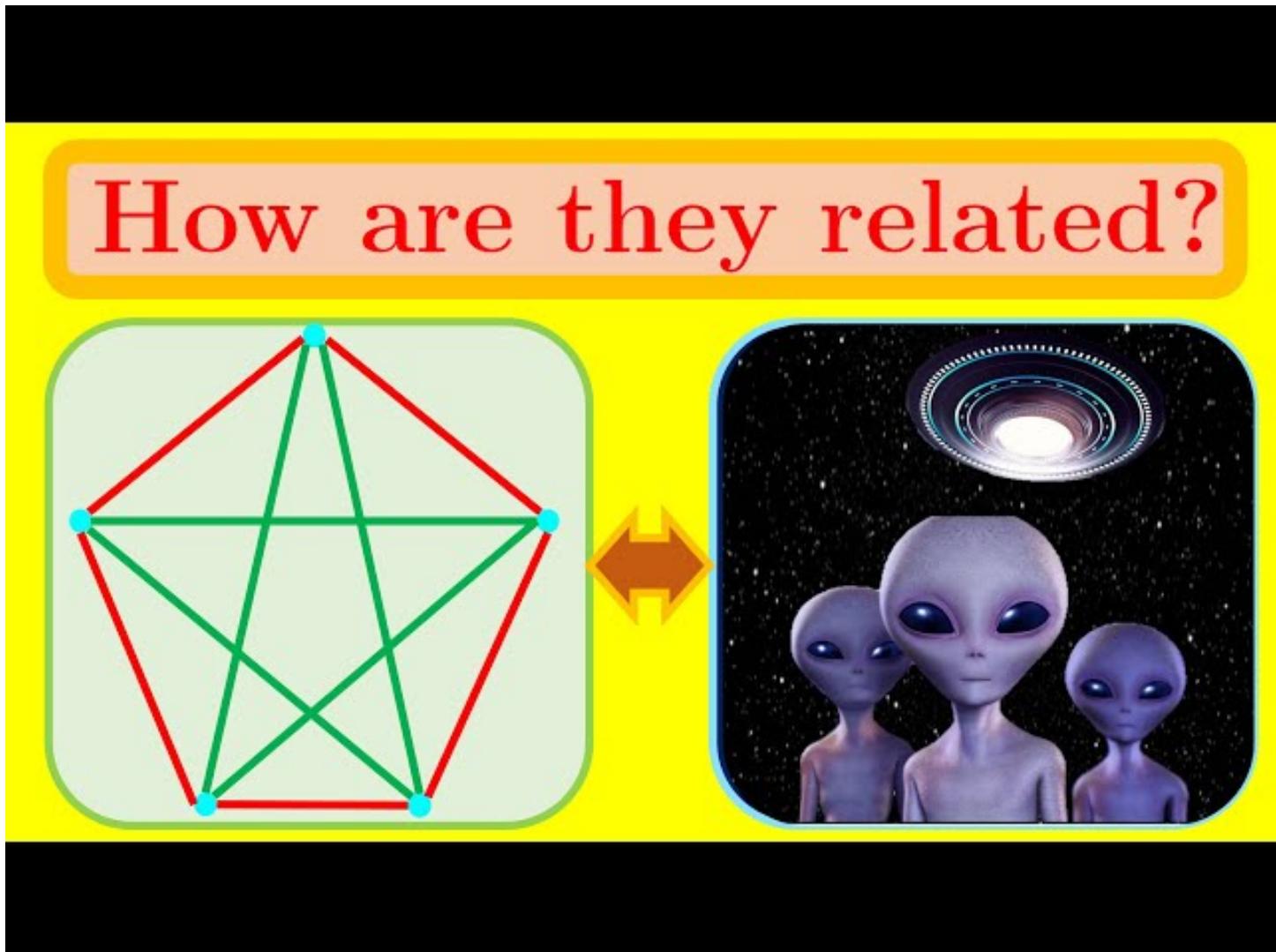


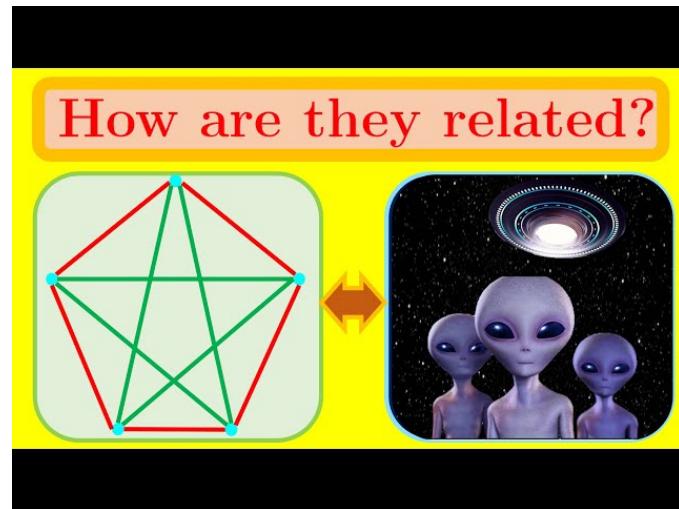






20 Interesting graphs from Ramsey Theory



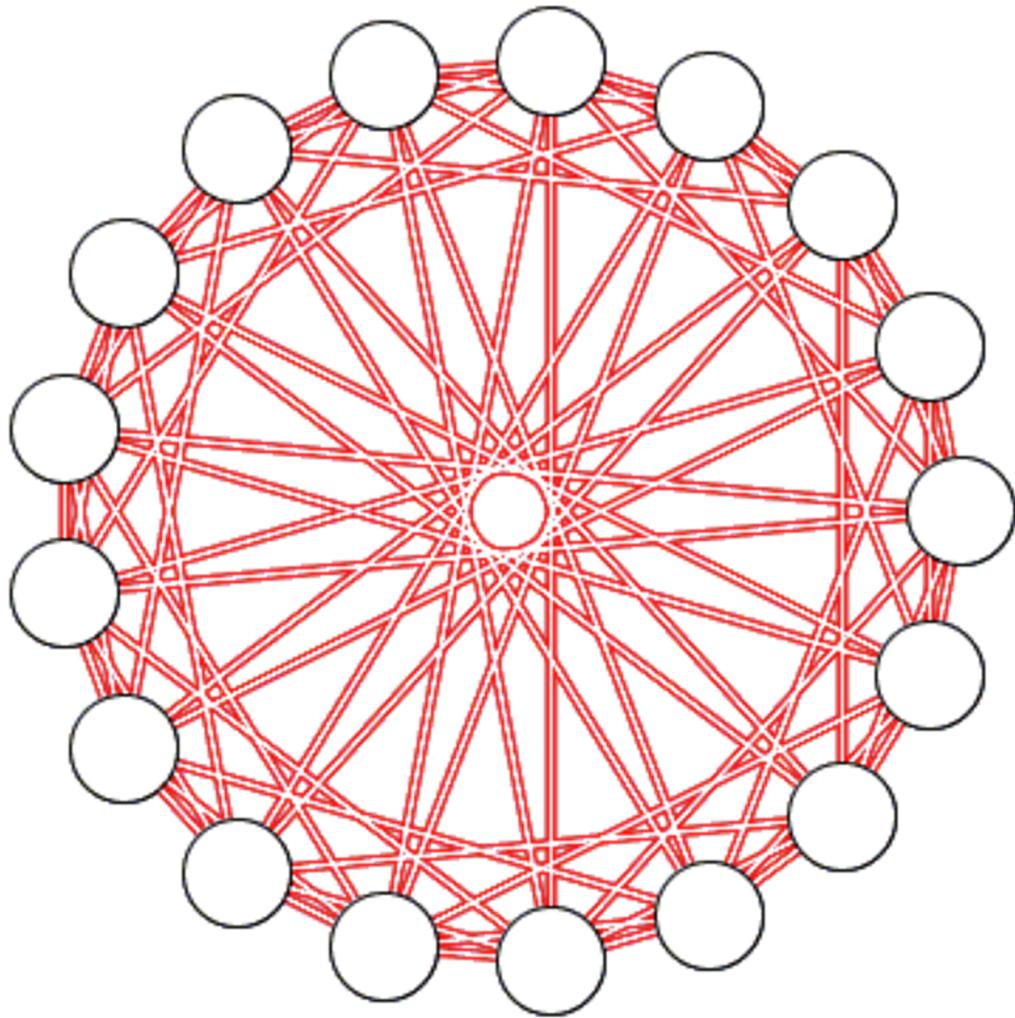


SUPPOSE ALIENS INVADE THE EARTH AND THREATEN TO OBLITERATE IT IN A YEAR'S TIME UNLESS HUMAN BEINGS CAN FIND THE RAMSEY NUMBER FOR RED FIVE AND BLUE FIVE. WE COULD MARSHAL THE WORLD'S BEST MINDS AND FASTEST COMPUTERS, AND WITHIN A YEAR WE COULD PROBABLY CALCULATE THE VALUE. IF THE ALIENS DEMANDED THE RAMSEY NUMBER FOR RED SIX AND BLUE SIX, HOWEVER, WE WOULD HAVE NO CHOICE BUT TO LAUNCH A PREEMPTIVE ATTACK.

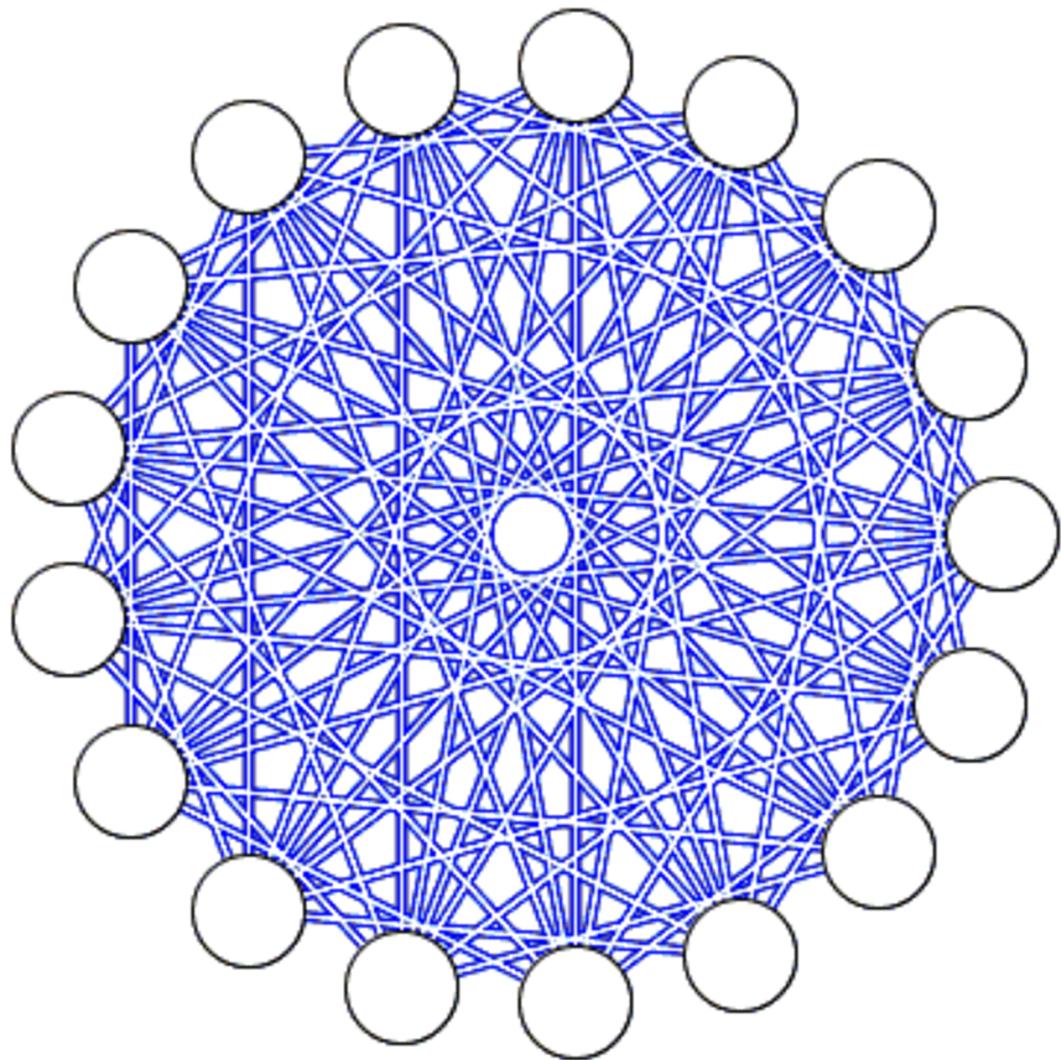
- PAUL ERDŐS -

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<https://www.cut-the-knot.org/arithmetic/combinatorics/Ramsey44.shtml>

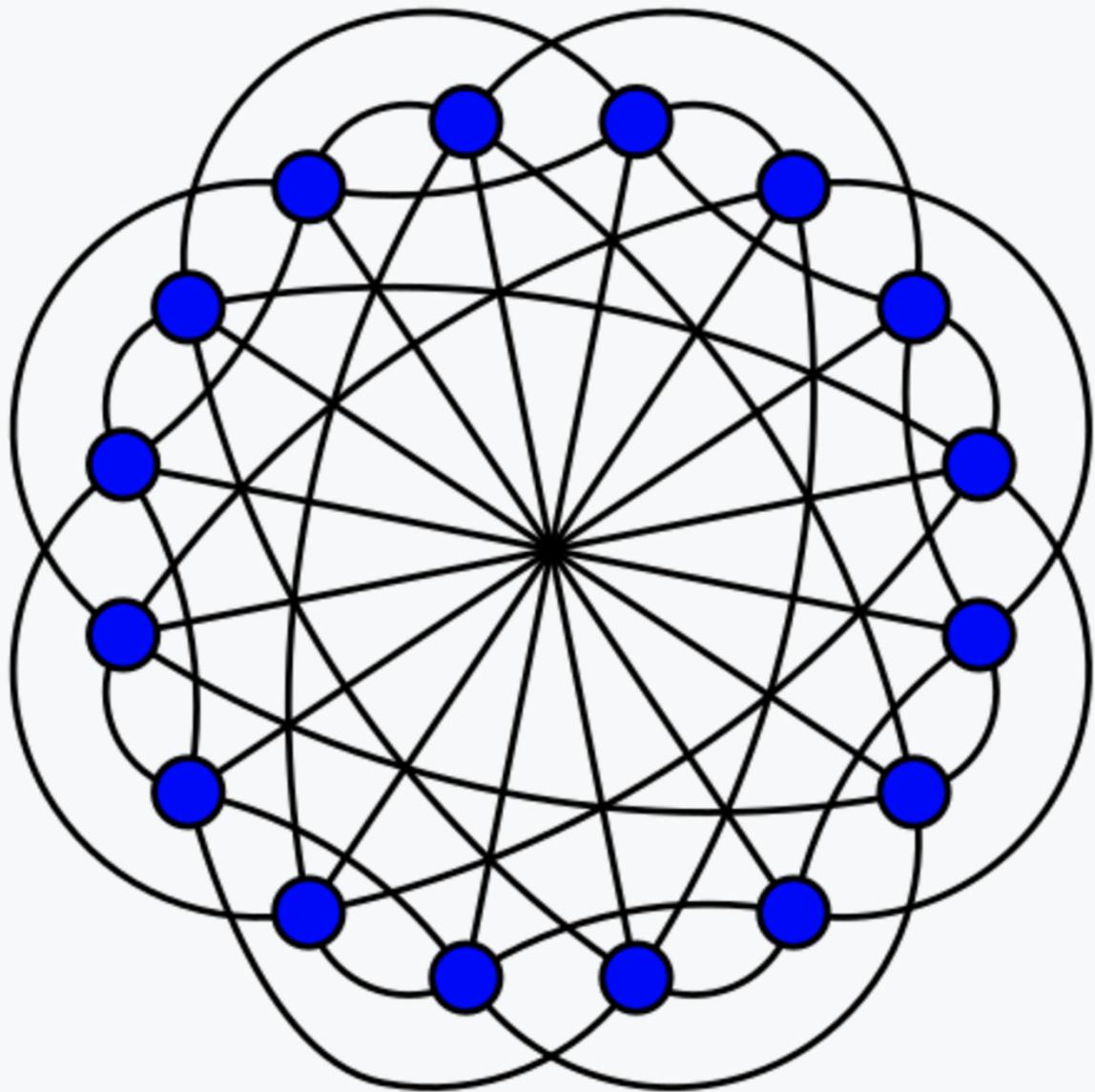


Place 17 nodes on a circle and join all the chords of lengths 1, 2, 4, and 8.



The complementary graph consists of chords of lengths 3, 5, 7, and 11.

https://en.wikipedia.org/wiki/Clebsch_graph





21 graph of all graphs

TODO

