Mathcamp 2020 Tentative Four-Week Schedule

Time	Week 1	Week 2	Week 3	Week 4
9 am	**[HR]** An inquiry-based approach to group theory 🐾🐾 (Katharine)	Combinatorics of tableaux 🐾🐾🐾 (Emily & Kayla)	Bairely complete 🐾🐾🐾 (Ben)	(Relatively) prime complex numbers 🐾🐾🐾 (Emily)
	Cut that out! 🐾🐾 (*Zach Abel*)	Graphs on surfaces 🐾🐾 (Marisa)	Congruences of Bernoulli numbers and zeta values 🐾🐾🐾🐾 (Eric)	Complexity theory 🐾🐾 (Linus)
	Determinantal formulas 🐾🐾 (Kayla)	Introduction to number theory 🐾🐾🐾 (Mark)	Geometric programming 🐾🐾 (Misha)	The John Conway Hour 🐾🐾 → 🐾🐾🐾 (Mira & Misha)
	Introduction to graph theory 🐾🐾 (Misha)	Markov chains and random walks 🐾🐾🐾 (Misha)	Gothic windows 🐾 (Kinga) / Spectral graph theory 🐾🐾 (Ania)	The Kakeya needle problem 🐾🐾 (Alan)
	[HR] Teaching math to computers 🐾🐾🐾 (Apurva)	Oh the sequences you'll know 🐾 (*Zach Abel*)	Regular expressions and generating functions 🐾🐾 (Linus)	Uncertainty principle 🐾🐾🐾🐾 (Neeraja)
10 am	Cubic curves 🐾🐾🐾 (Mark)	**[HR]** Clopen for business: an inquiry-based approach to point-set topology 🐾🐾🐾 (Katharine)	Extremal set theory: intersecting families 🐾 (Neeraja)	Brooks' theorem blues 🐾🐾🐾 (Misha)
	Hyperplane arrangements 🐾 (Emily)	Conflict-free graph coloring 🐾🐾 (Pesto)	Fourier analysis 🐾🐾 (Alan)	How not to prove the Continuum Hypothesis (week 2 of 2) 🐾🐾🐾🐾 (Susan)
	Integration on manifolds 🐾🐾🐾🐾 (Neeraja)	Quantum mechanics 🐾🐾🐾 (*Andrew Guo*)	FUNdamental groups and friends: an introduction to topological invariants 🐾🐾🐾 (Katharine)	Representation theory (week 2 of 2) 🐾🐾🐾🐾 (TBA)
	Introduction to linear algebra 🐾🐾 (Linus)	Ramanujan graphs, quaternions, and number theory 🐾🐾🐾🐾 (*Dan Gulotta*)	How not to prove the Continuum Hypothesis (week 1 of 2) 🐾🐾🐾🐾 (Susan)	So you like them triangles? 🐾🐾🐾 (Dennis)
	[HR] The bell curve 🐾🐾🐾 (Mira)	Weierstrass approximation 🐾🐾 (Neeraja) / Hilbert's space-filling curve 🐾🐾 (Ben)	Representation theory (week 1 of 2) 🐾🐾🐾🐾 (TBA)	Solving equations with origami 🐾🐾 (Eric)
Noon	Don't worry, these cats don't bite! (Basic category theory) 🐾🐾 (Dennis)	A Rubik's cube-based approach to group theory 🐾🐾 (Alan & Dennis)	Classifying complex semisimple Lie algebras 🐾🐾🐾🐾 (Kayla)	Combinatorial game theory 🐾🐾 (Tim!)
	[HR] Fourier something something boolean functions 🐾🐾🐾 (Tim!)	Cantor, Fourier, and the first uncountable ordinal 🐾🐾🐾 (Ben)	Geometry of lattices 🐾🐾🐾 (*J-Lo*)	**[HR]** Connections to category theory 🐾🐾🐾🐾 (Katharine)
	[HR] Introduction to analysis 🐾🐾 (Alan)	**[HR]** Introduction to ring theory 🐾🐾🐾 (Eric)	Grammatical group generation 🐾 (Eric) / Let's reverse-engineer photoshop 🐾 (*Olivia Walch*)	Extremal graph theory 🐾🐾🐾 (Mia)
	[HR] Majorizing-Comparisons Solving of Problems 🐾🐾🐾🐾 (Pesto)	Modeling computation 🐾🐾 (Mia)	**[HR]** Information theory 🐾🐾🐾 (Mira)	Fair squares (mod p) 🐾🐾 (Maya)
	[HR] Mathcamp crash course 🐾 (Susan)	Wallis and his product 🐾 → 🐾🐾🐾🐾 (*Jon Tannenhauser*) / The Plünnecke–Ruzsa inequality 🐾🐾 (Milan)	The John Conway hour 🐾 → 🐾🐾 (Pesto & Tim!)	Functions you can't integrate 🐾🐾🐾 (Ben)

Key: **[HR]**—Homework Required