Mathcamp 2024 — Week 5 Schedule [REVISED TWICE]

		Tuesday 7/30	Wednesday 7/31	Thursday 8/1	Friday 8/2
9:10–10 am	M103	Mandatory Assembly (McIntyre 103)	T171 Philosophy and mathematics 🤞 (Athina)		Perfect numbers 🤞🤞🤞 (Mark)
			T197 Medians, Convex Sets and Partitions 🤞🤞🤞🤞 (Arya)		
			T387 n^{n-2} proofs of Cayley's tree theorem 🤞🤞 (Zach)		Problem solving: lecture theory 🤞 (Misha)
			W218 Fourier series 🤞🤞 *(Alan Chang)*		
			W402 Cantor's leaky tent 🤞🤞🤞 (Ben)		No class
10:10–11 am	T171	Philosophy and mathematics	Ultrafilters and voting 🤞🤞 (Krishan)	Monoids in the category of endofunctors 🤞🤞🤞🤞 (Della)	MCSP: Mermaids Contained in Swimming Pools (Gershgorin Circle Theorem) 🤞 (Kailee)
	T197	Medians, Convex Sets and Partitions	Fermat is False in Finite Fields (FFFF) 🤞🤞🤞 (Travis)	4 dimensions is easy 🤞🤞 (Travis)	Slaying the hydra 🤞🤞 (Della)
	T387	n^{n-2} proofs of Cayley's tree theorem	The most depressing theorem I know 🤞 (Mira)	Democracy can always be gamed 🤞🤞 (Mira)	The politics of rounding fractions 🤞 (Mira)
	W218	Fourier series	T193 A tour of Hensel's world 🤞🤞 (Mark)	T193 The fastest algorithm nobody uses 🤞🤞🤞 *(Shimon Schlessinger)*	T193 Statistical mechanics 🤞🤞 *(Max Misterka)*
	W402	Cantor's leaky tent	No class		
11:10 am–noon	*T197*	The magic of determinants 🤞🤞🤞 (Mark)			*T197* The Cayley-Hamilton theorem 🤞🤞🤞 (Mark)
	T197	Intro to knot theory (and to Alyona's undergrad thesis) 🤞🤞 (Alyona)			
	W218	Unlikely maths 🤞🤞🤞 (Misha)			
	T171	Foliation theory 🤞🤞 *(Katie Mann)*			The seven circles theorem 🤞🤞 (Zach)
	W402	Proof that the universe has a beginning 🤞🤞🤞🤞 (Laithy)			
		Lunch			
1:10–2 pm	T171	Grammatical group generation 🤞 (Eric)		Elliptic curves with complex multiplication 🤞🤞🤞 (Chloe)	
	T193	Probabilistic programming: human intelligence as computation (hour 1 of 2) 🤞🤞 *(Vikash Mansinghka & Josh Tenenbaum)*		Counting solutions to equations mod p 🤞🤞🤞 (Kevin)	
	T197	Exploring the Catalan numbers 🤞🤞 (Mark)	Wizards in hats 🤞🤞🤞→🤞🤞🤞 (Della)	Colorful puzzles & Dehn functions 🤞🤞 (Sonya)	
	T387	Calculus without calculus 🤞🤞 (Tim!)		Zeta functions over finite fields 🤞🤞🤞🤞 (Narmada)	
	T189	The Eras Tour: Blank Space 🤞 (Glenn, Chloe, & Jennifer)	W402 The Eras Tour: Begin Again 🤞🤞 (Glenn & Jennifer)	W402 The Eras Tour: Love Story 🤞🤞 (Glenn & Jennifer)	W402 The Eras Tour: All Too Well (50 Minute Version) 🤞 (Glenn & Jennifer)
2:10–3 pm	T171	Determined to Determinant: Leibniz Edition 🤞 (Kailee)	Determined to Determinant: Perfect Matching Edition 🤞 (Kailee)	18446744069414584321 🤞🤞🤞 (Eric)	Burnside's Lemma 🤞🤞🤞 *(William Burnside)*
	T193	Probabilistic programming: human intelligence as computation (hour 2 of 2)		Kursed Counterexamples 🤞🤞 (Kevin, Krishan, & Zach)	Fractal Dimensions — $\log_2$ 🤞🤞🤞 *(Hermann Minkowski)*
	T197	The cyclic polytope 🤞🤞 (Sonya)		Problem solving: tetrahedra 🤞🤞🤞🤞 (Misha)	The mathematics of polygamy (and bankruptcy) 🤞 *(Rabbi Judah ha-Nasi)*
	T387	Spec of a ring 🤞🤞🤞🤞 (Kevin)		The Putnam 🤞 (Mark)	A game you can't play (but would win if you could) 🤞 *(Ernst Zermelo)*
3–4 pm	Thompson	TAU: Partial Interval			
4:10–5 pm	M103 (Colloquium)	From rotating needles to projections of fractals *(Alan Chang)*	Orderable groups *(Katie Mann)*	More PI (TAU)	Project fair (in Thompson)
Evening		Future of You	Team Problem Solving	Future of Mathcamp	Talent Show

Meals: Breakfast 7–9 am, Lunch 11:30 am–1:30 pm, Dinner 4:30–6:30 pm (Wheelock)

Key: M = McIntyre T = Thompson, W = Weyerhaeuser,