1. **Algebra** (about numbers)

1.1. **Set theory/Combinatorics.** About counting.

1.2. **Group theory.** About symmetry.

1.3. **Ring theory.** About algebraic equations and representations.

2. **Geometry** (about figures)

2.1. **Algebraic topology.** About “rubber” geometry.

2.2. **Differential geometry.** About “metric” geometry.

2.3. **Algebraic geometry.** About the geometry of polynomial equations.

3. **Analysis** (about functions)

3.1. **Real analysis.** About differentiation, integration, measure.

3.2. **Complex analysis.** About holomorphic functions.

3.3. **Functional analysis.** About spaces of functions and their operators.

4. **Interactions between algebra, geometry, and analysis**

1.1–2.3: work of Ax, Hrushovski; work of Stanley

1.2–1.3: Galois theory

1.2–2.3: Langlands philosophy

1.2–3.1: Fourier analysis

1.3–1.1: Intersection theory

1.3–2.3: Grothendieck scheme theory

1.3–3.1: Fourier analysis, probabilistic number theory

1.3–3.2: Zeta functions

1.3–3.3: Mazur-Gelfand, Connes non-commutative geometry

2.1–2.2: Gauss-Bonnet

2.1–2.3: Weil conjectures

2.1–3.3: Connes non-commutative geometry

2.2–2.3: Hodge theory, Arakelov theory

2.2–3.2: Kahler geometry

2.2–3.3: Hodge theory, index theory

2.3–3.1: Arakelov theory: equidistribution

2.3–3.2: Complex analytic geometry, uniformization