

A checklist of topics we've covered:

This is not guaranteed to be comprehensive, but it should be helpful as a framework for review.

- Continuity and open sets in \mathbf{R}
- Arbitrary unions, intersections, and Cartesian products
- Finite and infinite sets
- Topological spaces
- Continuity
- The subspace topology
- The quotient topology
- Homeomorphisms
- Bases
- The product topology
- Metric spaces
- Hausdorff spaces
- Manifolds
- Closure and interior
- Limit points
- Connectedness
- Connectedness in \mathbf{R} and the IVT
- Path connectedness and connectedness in \mathbf{R}^n

Not on this exam:

- The axiom of choice
- Compactness