Tests that specialization is working correctly:

- Dispatch
 - o On methods, includes:
 - Specialization via adding a trait bound
 - Including both remote and local traits
 - Specialization via pure structure (e.g. (T, U) vs (T, T))
 - Specialization via concrete types vs unknown types
 - In top level of the trait reference
 - Embedded within another type (Vec<T> vs Vec<i32>)
 - Specialization based on super trait relationships
 - On assoc fns
 - Ensure that impl order doesn't matter
- Item inheritance
 - Correct default cascading for methods
 - Inheritance works across impls with varying generics
 - With projections
 - With projections that involve input types
- Normalization issues
 - Non-default assoc types can be projected
 - Including non-specialized cases
 - Including specialized cases
 - Specialized Impls can happen on projections
 - o <u>Projections and aliases play well together</u>
 - <u>Projections involving specialization allowed in the trait ref for impls, and overlap can still be determined</u>
 - Only works for the simple case where the most specialized impl directly provides a nondefault associated type
- Across crates
 - For traits defined in upstream crate
 - Full method dispatch tests, drawing from upstream crate
 - Including additional local specializations
 - Full method dispatch tests, without turning on specialization in local crate
 - Test that defaults cascade correctly from upstream crates
 - Including *additional* local use of defaults