Name four optimizations HotSpot can perform.

- Method inlining: moving the code directly to where the call occurs.
- On-stack replacement: deciding whether to put on object on the stack or the heap.
- Escape analysis: determining if references are ever accessed outside a given scope, in order to minimize the need for locking.
- Dynamic de-optimization: reverting optimizations that are shown to be disadvantageous at run-time.