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**Lab Terminal Q:3**

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**Q3: Write Code Optimizations Used in Your Mini Compiler?.**

1. **Constant Folding**: Simplifies constant expressions at compile time
   * Example: int x = 2 + 3; is optimized to int x = 5;.
2. **Dead Code Elimination**: Removes unreachable or unused code.
3. **Loop Invariant Code Motion**: Moves invariant calculations outside loops.
4. **Peephole Optimization**: Simplifies sequences of intermediate instructions.