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## Task C

- 1. 128 is the best tile size because it is the smallest possible matrix problem size for the program and it is a power of 2.
- 2. 50%
- 3. Because it takes advantage of the caching that most machine architectures use, which caches values located in memory that are spatially close to each other.
- 4. Cache misses:
  - Non-optimized code: 21,634,292,993 cache-misses
  - Optimized code: 32,644,781 cache-misses

## Sources:

• https://gcc.gnu.org/onlinedocs/gcc/Optimize-Options.html