

# Assignment 4

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Assume you perform a histogram operation on an array of size  $N$ , 16 blocks, block size of  $B$  and 1024 bins. Assume a privatized histogram implementation.

1. How many global memory reads are performed during the histogram kernel?

**Answer:**  $N + 1024 * 16$

2. How many global memory writes are performed during the histogram kernel?

**Answer:**  $1024 * 16$

3. How many total atomic operations are performed?

**Answer:-**  $N + 1024 * 16$