

Worksheet #8: Analysis of Map Reduce Example

Name: _____

Netid: _____

Analyze the total WORK and CPL for the Map reduce example in the previous slide, under the following assumptions:

- Assume that each Map step has $WORK = \text{number of input words}$, and $CPL=1$
 - For example, $WORK=3$ and $CPL=1$ for Map 1
- Assume that each Reduce step has $WORK = \text{number of input word-count pairs}$, and $CPL = \log_2(\text{number of occurrences for input word with largest count})$
 - For example, $WORK=5$ for Reduce 1, and $CPL = \log_2(4) = 2$

