Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. For a snooping cache implementation, complete the following matrix for the operations given. The spaces in the spreadsheet between operations are not necessarily an indication of the content that must be provided.



1. For the same operations in a directory cache scheme, complete the matrix below.. Again the space in the matrix is no indication of the required space.

**Matrix for Directory Problem**

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1. **Why are directory protocols dominant in machines with large numbers of processors?**