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- 1st Map Function:

for each tuple (A, i, j, A[i,j]) (i is the row number of A, j is the column number of A)
emit (j, (A, i, A[i,j]))
Similarly for each tuple (B, j, k, B[j,k]) (j is the row number of B, k is the column number of A)
emit (j, (B, k, B[j,k])) (1)

- 1st Reduce Function:

for each j in the key
for each i in the value list in A and for each k in the value list in B.
emit ((i,k), A[i,j] × B[j,k])
(1)

- 2nd Map Function:

Just is identity.
pass the key-value pair into reduce function.
(1)
for each k-v pair
emit ((i,k), A[i,j] × B[j,k])

- 2nd Reduce Function:

~~result~~ value = 0
for each key-value pair ((i,k), A[i,j] × B[j,k])
~~emit~~ value += A[i,j] × B[j,k]
emit (i, k, value), where i is the row of C
k is the column of C
value is the value of C[i,k]
(1)