# Word Counting: Reduce Function

**Map Output**

<Hello,1>
<World,1>
<Bye,1>
<World,1>

<Hello,1>
<Hadoop,1>
<Bye,1>
<Hadoop,1>
…

**After internal grouping**

<Bye → 1, 1, 1>

<Hadoop → 1, 1, 1, 1>

<Hello → 1, 1, 1>

**Reduce(K, V[ ])**

**Reduce(K, V[ ])**

**Reduce(K, V[ ])**

**Output**

<Bye, 3>

<Hadoop, 4>

<Hello, 3>

**Reduce(K, V[ ])**
**{ Int count = 0; For each v in V, count += v; Collect(K, count); }**