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1 Input:  $T$ , the target set of variables whose gradients must be computed
2 Input:  $\mathcal{G}$ , the computational graph
3 Input:  $z$ , the variable to be differentiated with respect to
4 Initialize: Let  $\mathcal{G}'$  be  $\mathcal{G}$  pruned to contain only nodes that are ancestors of  $z$  and
   descendants of nodes in  $T$ .
5 Initialize:  $grad\_table$ , data structure associating tensors to their gradients
6  $grad\_table[z] \leftarrow 1$ 
7 foreach  $V \in T$  do
8    $\perp$   $build\_grad(V, \mathcal{G}, \mathcal{G}', grad\_table)$ 
9 Return  $grad\_table$ 
```
