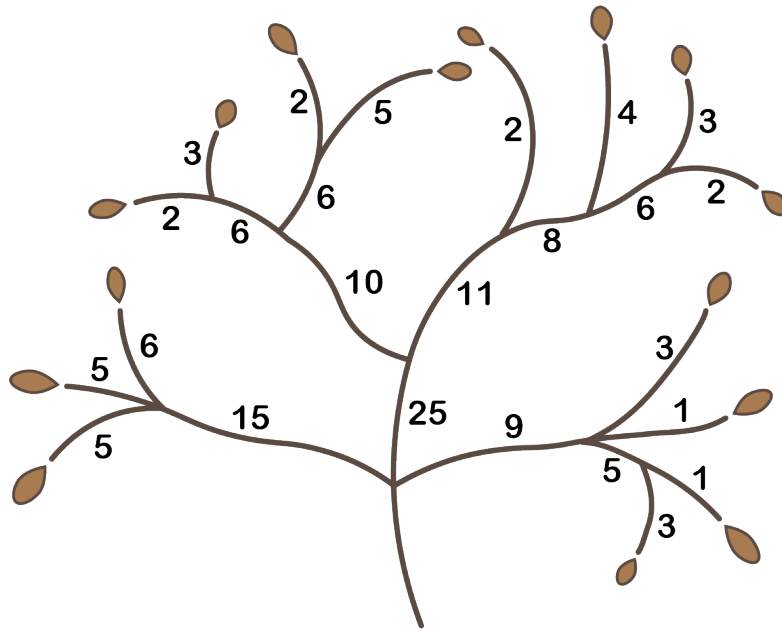




Problem of the Week Problem D Annual Pruning

At the end of each growing season, Joy likes to prune dead leaves from her favourite tree. She does this by cutting branches. For this tree, shown below, there are 15 leaves she wants to remove. She decides to give an approximate time it will take to cut each branch. These times are shown for each branch.



When a branch is cut, all branches and leaves attached to it are removed from the tree. For example, if you cut the branch labelled with 15, the three leftmost leaves will be removed.

What is the shortest amount of time in which Joy can remove all 15 leaves?