

Answers!

The Deca Tree

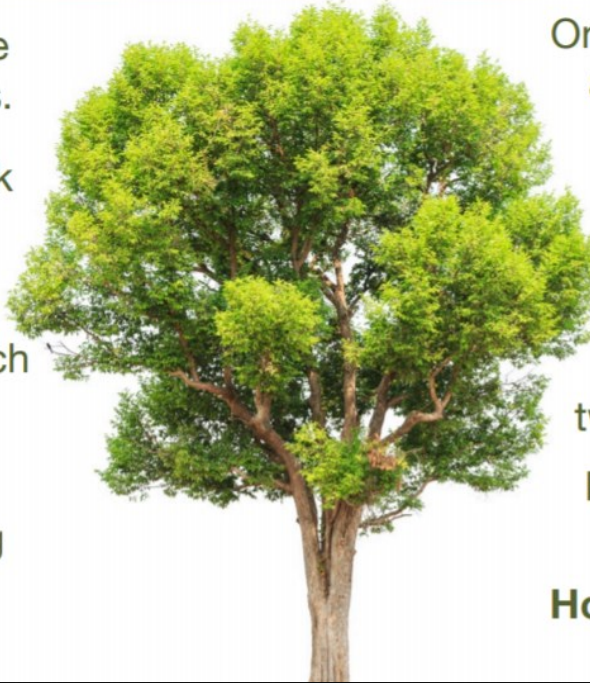


The deca tree
has 10 trunks.

On each trunk
there are 10
branches.

On each branch
there are
10 twigs.

On each twig
there are
10 leaves.



One day a woodcutter came
along and cut down one
trunk from the tree.

Then he cut off one
branch from another
trunk of the tree.

He then cut off one
twig from another branch.

Finally he pulled one leaf
from another twig.

**How many leaves were left
on the tree?**

There are 10 leaves per twig

There are 10 twigs per branch

$10 \text{ leaves} \times 10 \text{ twigs} = 100 \text{ leaves per branch}$

There are 10 branches per trunk

$100 \text{ leaves} \times 10 \text{ branches} = 1000 \text{ leaves per trunk}$

There are 10 trunks per tree

$1000 \text{ leaves} \times 10 \text{ trunks} = 10\,000 \text{ leaves on the tree}$

Cut off one trunk: $10\,000 - 1000 = 9000 \text{ leaves left}$

Cut off one branch: $9000 - 100 = 8900 \text{ leaves left}$

Cut off one twig: $8900 - 10 = 8890 \text{ leaves left}$

Pull off one leaf: $8890 - 1 = 8889 \text{ leaves left}$

There are 8889 leaves left on the tree.