## PROBLEM SOLVING <br> LEAF DROPS

In what order did the leaves land?

## Leaf Drops

In a Leaf Drop puzzle, the goal is to figure out the order in which the leaves fell.

Sometimes, it is impossible to tell whether one leaf fell before or after another. For example, in the pile below, since leaf D is below all of the others, it must have fallen first. And we know that C fell before B . But, we can't tell whether leaf $E$ fell second, third, or fourth.

The leaves could have fallen in any of these three orders:

## DECB <br> DCEB <br> DCBE



PRACTICE $\mid$ Answer the questions about each Leaf Drop below.

110. In the leaf pile above, which leaf landed:

First? $\qquad$
Second? $\qquad$
Last? $\qquad$

111. In the leaf pile above, which leaf landed:

First? $\qquad$
Third? $\qquad$
Last? $\qquad$

112. In the leaf pile above, list the order in which the leaves fell from first to last.
$\qquad$ , , —_ , , ,

114. In the leaf pile above, list

* the two leaves that could have fallen fourth:


113. In the leaf pile above, list the order in which the leaves fell from first to last.
$\qquad$ , ——, $\qquad$ , $\qquad$ ,

114. In the leaf pile above, list the two leaves that could have fallen third:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## PROBLEM SOLVING <br> FIY CATCHER

There are just enough flies for all of the frogs. Help the frogs catch the flies in the right order so that every frog gets a fly.

## Fly Catcher

In a Fly Catcher puzzle, the goal is for each frog to catch exactly one fly. A frog can only catch the fly in front of it that is closest. The frogs take turns catching flies.
The goal is to list the frogs in order so that every frog gets a fly.

## EXAMPLE

In what order should the frogs eat so that every frog gets a fly?


If frog $W$ eats before frog $X$, then frog $X$ won't have a fly to catch.

So, frog $X$ has to go before frog $W$.
That leaves only one fly for Frog W. So, frog W must go before Frog V.

The frogs must eat in order:
X, W, V.


It may help to draw and number lines from each frog to its fly as shown.

PRACTICE $\mid$ List the order that lets the frogs catch all of the flies.

116.

117.

119. $\qquad$

118.

120.


