

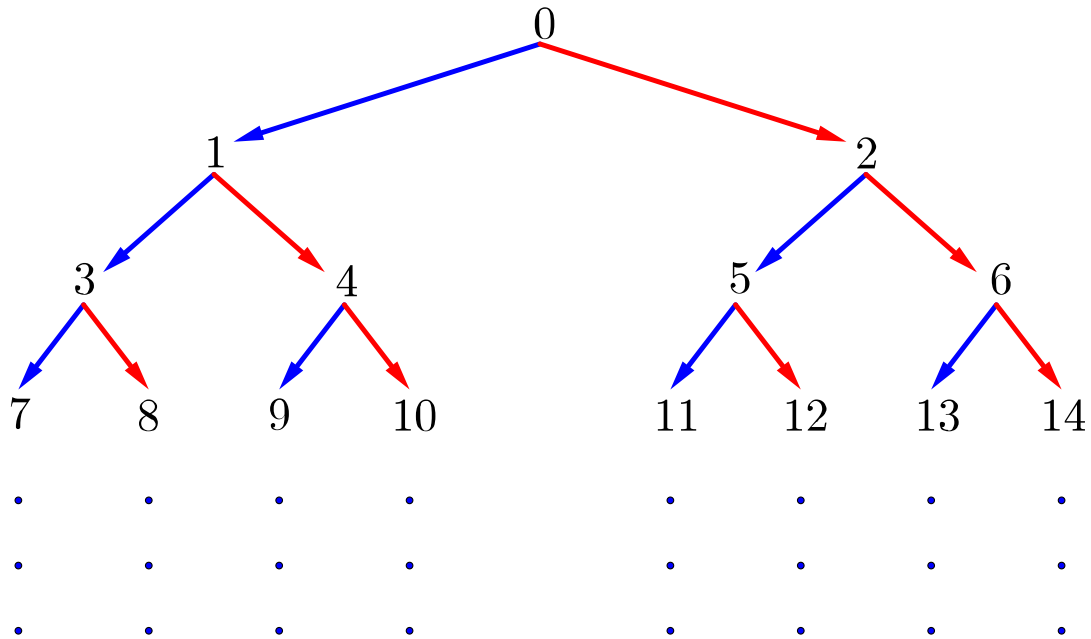


Problem of the Week

Problem D

Follow the Path

Consider the following number tree.



In this number tree, the integers greater than or equal to 0 are written out in increasing order, with the top row containing one integer and every row after containing twice as many integers as the row above it. Each integer is connected to two integers in the row below, one down and to the left and one down and to the right, as shown in the tree. For example, the number 5 is connected to the number 11 (down to the left) and the number 12 (down to the right) in the row below. Notice that we can get from 0 to 12 by going down right (R), down left (L), then down right (R).

Determine the integer you end at when you take the following path from 0:

$$R \rightarrow R \rightarrow R \rightarrow R \rightarrow R \rightarrow L \rightarrow L \rightarrow R \rightarrow L \rightarrow R$$

