

A Signal Tree Shows the Way

Trail Signal Trees are extremely important historically. They were used by Native Americans to mark trails. Native Americans made them by bending a sapling (small tree) and holding it by some means until the first curve was fixed by growth. Then the tree naturally grew straight up after this man-made bend.



Akron has one of the coolest trail signal trees. It is located in the Chuckery Area of the Cascade Valley Metro Park. The tree is 250-300 years old. It looks like a candelabra.

Let's see if you can sketch this tree by following the directions. Complete the table to discover a really neat number pattern.



Directions	Stage Number	Number of Branches	Challenge Can you use repeated multiplication or exponents to find a pattern in the number of branches?
There are three major branches in the tree. (See picture)	1	Major 3	3 or 3^1
Draw three medium size branches on each of the major branches above. Count the number of medium branches you drew and write the answer in this table.	2	Medium	3×3 or 3^2
Draw three small branches on each of the medium branches you drew in Stage 2. Count the number of small branches you drew and write the answer in this table.	3	Small	
<p>Try to predict the number of tiny branches you would draw if you drew three tiny branches on each of the small branches by looking for a pattern in the table. You can check your answer by drawing the branches on your tree.</p> <p>Hint: There should be more than 50 but less than 100.</p>	4	Tiny	

Just for LAUGHS or should I say "LEAVES"? If each tiny branch has five leaves on it and each small branch has three leaves on it and each medium branch has two leaves how many leaves would you have to draw?

5-7 math standard Describe, extend and determine the rule for patterns and relationships occurring in numeric patterns, computation, geometry, graphs and other applications