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Presentation of Results

n	k	t	Percentage of Tall Trees
1000	3.169770658584534	0.021896000000000002	0.0 %
2000	3.2306690068325628	0.012278	0.0 %
4000	3.3009206826574062	0.0068445	0.0 %
8000	3.345870864969565	0.00375875	0.0 %
16000	3.3957470928564804	0.0020545	0.0 %

Research Questions:

1. As n increases, does the average height appear to grow at a logarithmic rate, a linear rate, or something else?

As n increases linearly, we can see that the average height increases from 21.896 to 24.556 to 27.378 to 30.07 to 32.872 which amounts to about a difference of 3 each time. Thus, the average height appears to grow at a linear rate.

2. Does the percentage of tall trees (height >= n/2) grow, shrink, or remain fairly constant as n increases?

As n increases, the percentage of tall trees (height >= n/2) remains constant as n increases. This makes sense because the highest maximum height of all n values does not even come close to the smallest n/2 out of all n values, which would mean that the percentage of tall trees would remain 0.0% throughout.