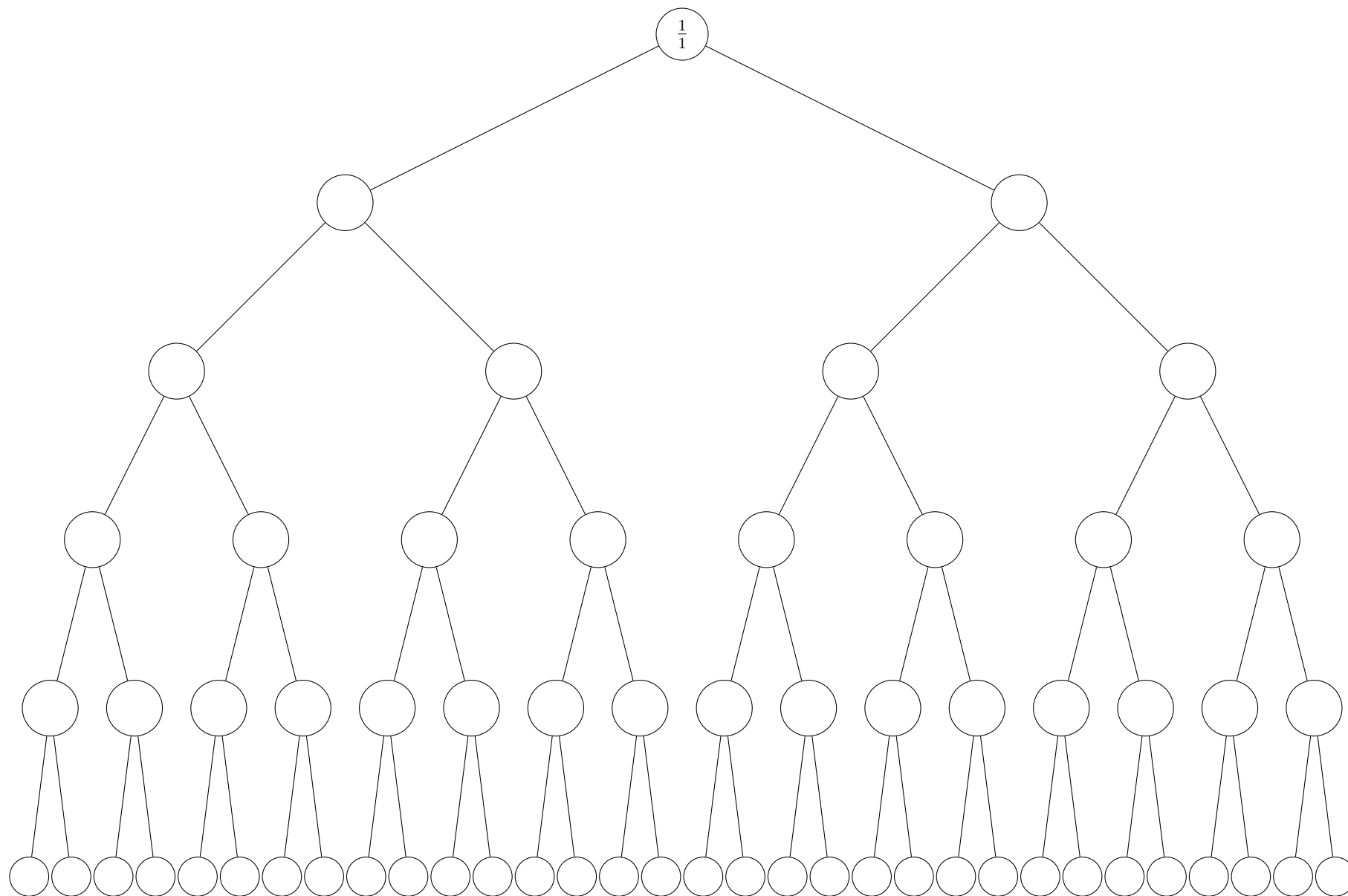The *Calkin–Wilf rules*: If a node contains $\frac{i}{j}$ then its left child contains $\frac{i}{i+j}$ and its right child contains $\frac{i+j}{j}$.

- What patterns do you notice?

- What are the *backwards Calkin–Wilf rules*? That is, if $\frac{i}{j}$ is a left child, what is its parent? If $\frac{i}{j}$ is a right child, what is its parent?