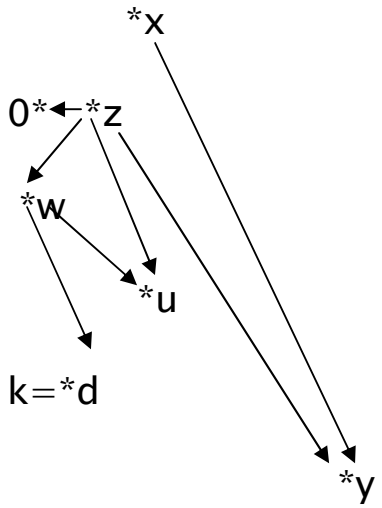
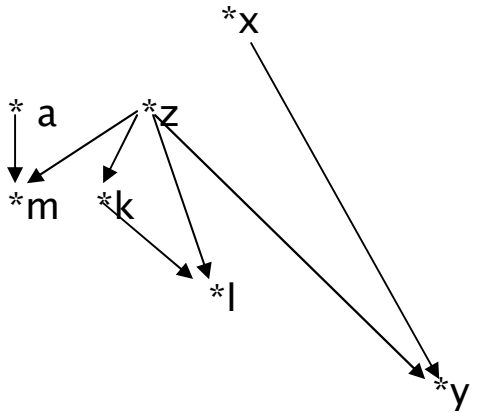
Infinity: $\exists x\ (\forall y.\ y \in x \Leftrightarrow (\forall z.\ (0 \in z \wedge (\forall u.\ u \in z \Rightarrow (\exists\ w.\ u \in w \wedge (\exists k.\ \forall\ d.\ d \in w \Rightarrow d=k) \wedge w \in z))) \Rightarrow y \in z))$.

The graph of the defining formula of the set above is:

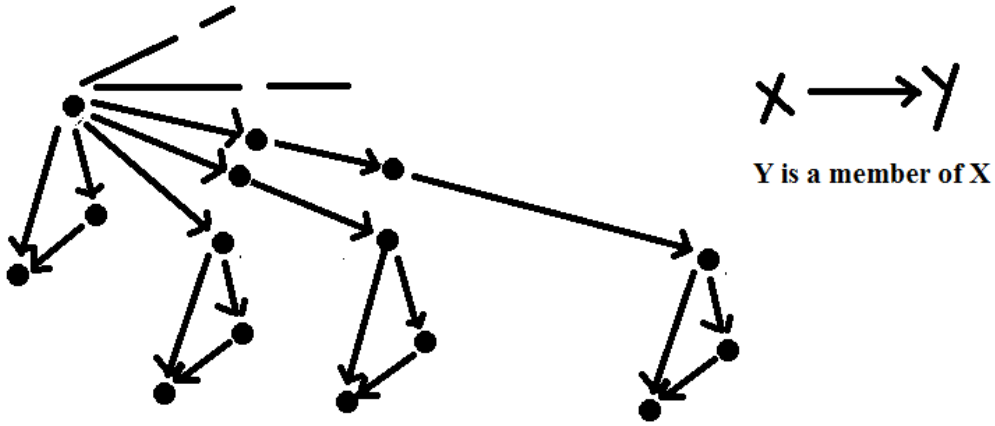


Transitive closure: $\forall a\ \exists x\ (\forall y\ .\ y \in x <\Rightarrow (\forall z.\ (\forall m.\ m \in a \Rightarrow m \in z) \wedge\ (\forall k,l:\ k \in z \wedge l \in k \Rightarrow l \in z) \Rightarrow y \in z)))$.

The graph of the defining formula of the set above:



x ⟶ y stands for $y \in x$.



Graph of the Recursive Cyclic Formula

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