A **term order** $\succ$ is a transitive and irreflexive binary relation on terms (strict, partial order).

A term order $\succ$ is **closed under substitutions (stable)**,if $s \succ t$ implies $s\sigma \succ t\sigma$, for all terms s, t and any substitution σ.

A term ordering is **monotonic** if $s \succ t$ implies $u[s]_p \succ u[t]_p$, for any terms s, t, u and a position p in u.

A term ordering is a **rewrite order** if it is a monotonic and closed under substitutions.

A term ordering is a **reduction order** if it is a well-founded rewrite ordering.

A term order has **Subterm Property**, if $u[s]_p \succ s$ for all terms s, u and $p \neq \epsilon$.

A term ordering is a **simplification order** if it is a rewrite order with subterm property.

Fact 7. Simplification orders are well-founded (Kruskal's theorem).