Facts about Term Rewriting Systems:

12. A rewrite rule is an equation $l \approx r$ such that l is not a variable and $Var(l) \supseteq Var(r)$. (we write $l \to r$).

13. A Term Rewriting System (TRS) is a set of rewrite rules.

14. if s, t are terms and R is a TRS, $s \to_R t$ means that there is $l \to r \in R$, position p in s, a substitution σ, such that $s|_p = l\sigma$ and $t = s[r\sigma]_p$.

15. We say that a TRS R is terminating if there is no infinite descending chain: $s_1 \to_R s_2 \to_R s_3 \to_R \cdots$.

Fact 8. A rewrite system R is terminating iff all its rules are contained in a reduction order.