1. A reduction is called confluent iff
   $t_1 \stackrel{*}{\leftarrow} s \stackrel{*}{\rightarrow} t_2$ implies $t_1 \downarrow t_2$ (hence t_1, t_2 reduce by $\rightarrow$ to one term).

2. A reduction is called Church-Rosser iff
   $s \stackrel{*}{\leftrightarrow} t$ implies $s \downarrow t$

3. A reduction is called terminating iff
   there is no infinite descending chain
   $s_0 \rightarrow s_1 \rightarrow \cdots$

4. A reduction is convergent iff
   it is both confluent and terminating.