# Estimation of SE and CI of combination of parameters in NLR

This document provides details on how Prism calculates standard errors of parameter transformations. These standard errors can be used to calculate symmetric (asymptotic) confidence intervals (formula provided at the end of this document).

### General formulas for calculating SE of parameter transforms

First, let’s designate:

, where

 - Covariance of A and B (the respective element of covariance matrix).

The expression for calculation of  from normalized covariance matrix elements and SE of respective parameters is the following:

, where

- is the respective element of normalized covariance matrix.

Using these definitions, we can use the following general formula for calculating the standard error of a transformed parameter

If , then .

### Examples of SE calculations for some simple parameter combinations:

Note: each of the given formulas below

1.   
   
2.   
   
3.   
   
4.   
   
5.   
   
6.   
   
7.   
   
8.   
   

### CI of parameters combinations:

