

# Response factor

## How is the response factor calculated?

Answer: [ETABS](#) and [SAP2000](#) calculate response factor (RF) using the following equation:

- $RF = [2.31 - 0.41 \log (100 (\text{Case} + \text{Link damping, express in ratio}))] / [2.31 - 0.41 \log (100 (\text{Function damping, express in ratio}))]$  [1],[2]

## References

1. Newmark, Nathan M.; Hall, William J. *Engineering monographs on earthquake criteria, structural design, and strong motion records*. Berkeley, CA: Earthquake Engineering Research Institute, 1982. Print.
2. Comartin, Craig D.; Niewiarowski, Richard W. *ATC-40, Seismic Evaluation and Retrofit of Concrete Buildings, Volume I*. Redwood City, CA: Applied Technology Council, 1996. Print.