



Figure 3: Values of the Function:  $50 \sin \sqrt{K \cdot \text{perCM}}$

## Conclusion

A method has been proposed to improve the Coleman-Oman model by modifying the contribution given by the comment component. The contribution to the improvement of the model of the  $\beta_5$  parameter calculation is particularly significant since this parameter, with the new method proposed, will no longer be set from the outside. Instead it will be determined simultaneously by means of the same process of estimation adopted to determine the estimates of the other parameters of the model.

Future developments will therefore have to regard the estimation of the coefficient K, the estimation of the parameters of the modified Coleman-Oman model,

and the experimentation of such model in industrial and public administration software systems.

## References

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2. Coleman, D.; Lowther, B.; and Oman, P.; Using Metrics to Evaluate Software System Maintainability, *IEEE Computer*, Vol. 27(8), pp. 44-49, Aug. 1994.
3. Coleman, D.; Lowther, B.; and Oman, P.; The Application of Software Maintainability Models on Industrial Software Systems, University of Idaho,

Software Engineering Test Lab, Report No. 93-03 TR, Nov. 1993.

4. Watson, A. and McCabe, T., Structured Testing: A Testing Methodology Using the Cyclomatic Complexity Metric, NIST, Sept. 1996, [www.itl.nist.gov/div897/sqg/pubs/publications.htm](http://www.itl.nist.gov/div897/sqg/pubs/publications.htm)

## Note

1. The open reengineering concept is similar in that the abstract models used to represent software systems should be as independent as possible of implementation characteristics such as source code formatting and programming languages. The objective is to be able to set model standards and interpret the resultant numbers uniformly across software systems [4].

## Additional Reading

1. Coleman, D., Assessing Maintainability, 1992 Software Engineering Productivity Conference Proceedings, Hewlett-Packard, pp. 525-532, 1992.
2. Oman, P. and Hagemeister, J., Constructing and Testing of Polynomials Predicting Software Maintainability, *Journal of Systems and Software*, Vol. 24(3), March 1994.

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