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\*\*\* START OF THIS PROJECT GUTENBERG EBOOK THE SQUARE  
ROOT OF 2 \*\*\*

# The Square Root of 2

by

Stan Kerr

This choice was made by popular demand for a second number, from the responses to our posting of Pi to a million places as one of the January, 1993 Project Gutenberg Etexts. This was suprising, in that we never expected the massive response we got. For you, who are interested, we will also do e, Pi to the e, e to the Pi, and perhaps a few more. Suggestions welcome. For those who are not interested, don't worry we don't have many of these in mind.

This electronic text was prepared by Stan Kerr as below.

He would like this computation confirmed.

This was computed on a Convex C240 using Richard Brent's multiple precision arithmetic routines (MP), published as algorithm 524 in the March 1978 issue of Transactions on Mathematical Software.

Using the MP routines, a base of 10000 was chosen, to make the final decimal conversion trivial.

The time to compute  $\sqrt{2}$  was 32293 seconds, and the time to compute  $\sqrt{2}^{**2}-2$  as a check was 31031 seconds. The number is presented as an integer with 40 digits per line of text.

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