

PRp v. 1. 1

Positive Real property test v. 1. 1

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Other files by the same author:

S2S symbolic two ports solver

PRp test v. 1. 0 is a little program written for ti-89 users who attend advanced courses in electric circuits and have to deal with *positive real functions*. Its purpose is to test the positive real property of rational functions. This program makes use of the Talbot criterion to evaluate functions. It has been tested with more than 30 exercises taken from an electric networks' theory book.

Two bugs of the previous version have been fixed. The utility has been re-tested. A new version is expected by the end of January 2000 but hopefully this time it will not be for fixing bugs.

Syntax:

prp(expr, var)

where expr is the function to be tested and var is the independent variable.

Example:

prp((2s+1)/(2s^2+1), s)

IMPORTANT!

PRp test gives correct answers when algebraic constants are not involved.

EXAMPLE:

3*s/(s^2+1)

can be successfully tested

k*s/(s^2+1)

when you enter this function the program will say it is not a positive real function. Even if you specified $K > 0$. This is a wrong answer. SO DO NOT USE PRp TO DEAL WITH PARAMETRIC FUNCTIONS.
