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 1
 2    BINOMIAL REDUNDANT RELIABILITY (BINOMIAL.BAS)
 3    ORIGINAL DATE: CIRCA 1986
 4    REVISION DATE: October 22, 2020
 5    AUTHOR: Phil Rutherford
 6    RUN DATE: 22-10-2020 (DD-MM-YYY)
 7    RUN TIME: 19:22:02
 8    RUN WITH MMBASIC (www.mmbasic.com)
 9
10    RELIABILITY OF PARALLEL OPERATING AND STANDBY UNITS USING THE BINOMIAL EXPANSION
11
12    MINIMUM NUMBER OF OPERATING UNITS REQUIRED? 10
13    MAXIMUM NUMBER OF ADDITIONAL OPERATING REDUNDANT UNITS? 10
14    UNIT FAILURE RATE PER HOUR? .00001
15    MISSION TIME IN HOURS? 8760
16
17    RELIABILITY WITH 0 OPERATING REDUNDANT UNITS IS 0.416445366     P(=> 10/ 10.S)
18    RELIABILITY WITH 1 OPERATING REDUNDANT UNITS IS 0.7657295287    P(=> 10/ 11.S)
19    RELIABILITY WITH 2 OPERATING REDUNDANT UNITS IS 0.9268543482    P(=> 10/ 12.S)
20    RELIABILITY WITH 3 OPERATING REDUNDANT UNITS IS 0.9809102722    P(=> 10/ 13.S)
21    RELIABILITY WITH 4 OPERATING REDUNDANT UNITS IS 0.9956451832    P(=> 10/ 14.S)
22    RELIABILITY WITH 5 OPERATING REDUNDANT UNITS IS 0.9991055841    P(=> 10/ 15.S)
23    RELIABILITY WITH 6 OPERATING REDUNDANT UNITS IS 0.9998311674    P(=> 10/ 16.S)
24    RELIABILITY WITH 7 OPERATING REDUNDANT UNITS IS 0.9999702683    P(=> 10/ 17.S)
25    RELIABILITY WITH 8 OPERATING REDUNDANT UNITS IS 0.9999950602    P(=> 10/ 18.S)
26    RELIABILITY WITH 9 OPERATING REDUNDANT UNITS IS 0.9999992189    P(=> 10/ 19.S)
27    RELIABILITY WITH 10 OPERATING REDUNDANT UNITS IS 0.9999998817   P(=> 10/ 20.S)
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29  >
30
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