



DECUS

PROGRAM LIBRARY

DECUS NO.	L-91
TITLE	PROG 2
AUTHOR	Paul Shrager Submitted by John R. Urbach
COMPANY	Woman's Medical College of Pennsylvania Philadelphia, Pennsylvania
DATE	January 1970
SOURCE LANGUAGE	PAL III

PROG 2

DECUS Program Library Write-up

DECUS No. L-91

ABSTRACT

A program for calculating the significance of differences between the number of heartbeat intervals of a particular duration in two groups of intervals of many different durations.

DESCRIPTION

PROG 2 calculates Student's "t" from the following equation:

$$t = \frac{1}{\sqrt{2}} \left[\frac{N_1 - P \cdot N}{\sqrt{N_1 \cdot P \cdot (1-P)}} - \frac{N_2 - P \cdot N}{\sqrt{N_2 \cdot P \cdot (1-P)}} \right]$$

where

$$P = \frac{N_{11} + N_{21}}{N_1 + N_2}$$

and N_1 = the total number of intervals in group 1.

N_2 = the total number of intervals in group 2.

N_{11} = the number of intervals of specified duration in group 1.

N_{21} = the number of intervals of specified duration in group 2.

Degrees of freedom are assumed infinite.

USAGE

Load program via BIN loader and start at 200. Enter input in decimal, terminating each with RETURN. If an incorrect character is hit type "?" and restart line. The program outputs t in exponential form and asks for new input.

