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DECUS NO.	FOCAL8-196
TITLE	FISHER'S EXACT TEST
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SOURCE LANGUAGE	FOCAL

FISHER'S EXACT TEST

DECUS Program Library Write-up

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To Run FISHER'S EXACT TEST

1. Enter FOCAL Language into PDP-8 (S.A. 7600)
2. Initiate Dialogue (S.A. 200)
3. Respond "No" to Both Questions
4. Enter "FISHER'S EXACT TEST" Through Tape Reader
5. Depress "G" and "Return"
6. Teletype Types Heading, Requests Data For Each of the 4 Cells, and Prints Probability Estimate
7. Return to Step 5 for each New Analysis

Data Set-Up

Cell A	Cell B
Cell C	Cell D

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C-FOCAL,1969

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01.01 T %2,!"FISHER'S EXACT TEST"!;E
01.02 A "CELL A",A,"CELL B",B,"CELL C",C,"CELL D",D
01.03 T !"CONDITION          1          2          TOTALS"!
01.04 T "          *****"
01.05 T !"GROUP I          ",A,"          ",B,"          ",A+B,!
01.06 D 1.04;T !"GROUP II          ",C,"          ",D,"          ",C+D,!
01.07 D 1.04;T !"          TOTALS          ",A+C,"          ",B+D,"          "A+B+C+D

02.03 S D1=1;S D2=1;S D3=1;S D4=1;S D5=1
02.04 S N1=1;S N2=1;S N3=1;S N4=1
02.05 F I=1,(A+B);S N1=N1*I
02.06 F I=1,(C+D);S N2=N2*I
02.07 F I=1,(A+C);S N3=N3*I
02.08 F I=1,(B+D);S N4=N4*I
02.09 F I=1,(A+B+C+D);S D1=D1*I
02.10 F I=1,A;S D2=D2*I
02.11 F I=1,B;S D3=D3*I
02.12 F I=1,C;S D4=D4*I
02.13 F I=1,D;S D5=D5*I

03.05 S P=(N1*N2*N3*N4)/(D1*D2*D3*D4*D5)
03.06 T !%6.05!!"PROBABILITY OF RANDOM!"OCCURRANCE OF THIS"!
03.07 T "DISTRIBUTION ",P,!!!!
*00000000
    
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