

SAS001 t TEST

Question: Is it true that on average the rate of inflation 1980-92 was higher than the average rate of inflation 1970-80?

Explain how you arrived at your answer (how do you know from your output that this is the answer)?

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data inflationrate;
input
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country $ a2 -a11;
label      a2= Population
           a3= Area
           a4= GNP per capita 1992
           a5= avg annual growth of real GNP per capita 1980-92
           a6= rate of inflation 1970-80
           a7= rate of inflation 1980-92
           a8= Life expectancy 1992,
           a9= adult illiteracy female 1990
           a10= adult illiteracy - Total 1990
           a11= Continent code ;

diff = a6 -a7;
cards;
Mozambiq 16.5 802 60 -3.6 x 38 44 79 67 1
Ethiopia 54.8 1222 110 -1.9 4.3 2.8 49 x x 1
Tanzania 25.9 945 110 x 14.1 25.3 51 x x 1
Sierra 4.4 72 160 -1.4 12.5 60.8 43 89 79 1
Nepal 19.9 141 170 2 8.5 9.2 54 87 74 2
Uganda 17.5 236 170 x x x 43 65 52 1
Bhutan 1.5 47 180 x x 8.7 48 75 62 2
Burundi 5.8 28 210 1.3 10.7 4.5 48 60 50 1
Malawi 9.1 118 210 -0.1 8.8 15.1 44 x x 1
Banglade 114.4 144 220 1.8 20.8 9.1 55 78 65 2
Chad 6 1284 220 3.4 7.7 0.9 47 82 70 1
Guinea 1 36 220 1.6 5.7 59.3 39 76 64 1
Madagasc 12.4 587 230 -2.4 9.9 16.4 51 27 20 1
Rwanda 7.3 26 250 -0.6 15.1 3.6 46 63 50 1
Niger 8.2 1267 280 -4.3 10.9 1.7 46 83 72 1
BurkinaF 9.5 274 300 1 8.6 3.5 48 91 82 1
India 883.6 3288 310 3.1 8.4 8.5 61 66 52 2
Kenya 25.7 580 310 0.2 10.1 9.3 59 42 31 1
Mali 9 1240 310 -2.7 9.7 3.7 48 76 68 1
Nigeria 101.9 924 320 -0.4 15.2 19.4 52 61 49 1
Nicaragu 3.9 130 340 -5.3 12.8 656.2 67 x x 3
Togo 3.9 57 390 -1.8 8.9 4.2 55 69 57 1
Benin 5 113 410 -0.7 10.3 1.7 51 84 77 1
CentralA 3.2 623 410 -1.5 12.1 4.6 47 75 62 1
Pakistan 119.3 796 420 3.1 13.4 7.1 59 79 65 2
Ghana 15.8 239 450 -0.1 35.2 38.7 56 79 65 1
China 1162.2 9561 471 x x 6.5 69 38 27 2
Maurinta 2.1 1026 530 -0.8 9.9 8.3 48 79 66 1
SriLanka 17.4 66 540 1 2.3 11 72 17 12 2
Zimbabwe 10.4 391 570 -0.9 9.4 14.4 60 40 33 1
Honduras 5.4 112 580 -0.3 8.1 7.6 66 29 27 3
Lesotho 1.9 30 590 -0.5 9.7 13.2 60 x x 1
Egypt 54.7 1001 640 1.8 9.6 13.2 62 66 52 1
Indonesi 184.3 1905 670 4 21.5 8.4 60 32 23 2
Myanmar 43.7 677 x x 11.4 14.8 60 28 19 2
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proc means n mean t prt; var a6 a7 diff;
run;
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OUTPUT:

The SAS System

The MEANS Procedure

Variable	Label	N	Mean	t Value	Pr > t
a6	rate of inflation 1970-80	31	11.4709677	10.80	<.0001
a7	rate of inflation 1980-92	34	32.6382353	1.71	0.0963
diff		31	-22.6096774	-1.08	0.2870

ANSWER: THERE IS NO STATISTICALLY SIGNIFICANT DIFFERENCE BETWEEN THE TWO RATES OF INFLATION.

SINCE THE PROBABILITY VALUE OF THE DIFFERENCE BETWEEN THESE TWO MEANS = 0.2870, WHICH IS GREATER THAN 0.05.