

ECE 341 - Homework #15

F-Test and ANOVA. Summer 2024

Test of a 3+ Populations

1) The yearly rainfall in Fargo over 20 year spans are: (units: inches per year)

- Source: Hector Airport

		mean	std	n
A	1942-1961	19.6925	3.6771	20
B	1972-1991	19.5740	4.9078	20
C	2002-2021	23.5047	5.3599	19

Determine if the means are the same using an ANOVA test.

2) The yearly snowfall in Fargo over 20 year spans are: (units: inches per year)

- Source: Hector Airport

		mean	std	n
A	1942-1961	30.0750	15.9243	20
B	1962-1981	38.7700	10.1451	20
C	1982-2001	52.1250	23.4270	20

Determine if the means are the same using an ANOVA test.

3) Is rainfall on a three-year cycle? The yearly rainfall in years mod 3 are (units: inches per year)

	year mod 3	mean	std	n
A	0	23.4496	5.0424	27
B	1	20.3848	4.5258	26
C	2	19.7235	4.7955	26

Determine if the means are the same using an ANOVA test.