

Ex Listed below are attribute ratings of males by females who participated in speed dating events. Use a 0.05 significance level to test the claim that females in the different age brackets give attribute ratings with the same mean. [Triola, 13th Edition 12.1 #14]

Age 20-22	38	42	30.0	39	47	43	33	31	32	28
Age 23-26	39	31	36.0	35	41	45	36	23	36	20
Age 27-29	36	42	35.5	27	37	34	22	47	36	32

- (a). Find the test statistic.
- (b). Find the P -value.
- (c). Determine whether to reject or fail to reject the claim.
- (d). State your conclusion in the context of the problem.
- (e). Does age appear to be a factor in the female attribute ratings?

Ex Listed below are amounts of arsenic in samples of brown rice from three different states. The amounts are in micrograms of arsenic and all samples have the same serving size. The data are from the Food and Drug Administration. Use a 0.05 significance level to test the claim that the three samples are from populations with the same mean. [Triola, 13th Edition 12.1 #12]

Arkansas	4.8	4.9	5.0	5.4	5.4	5.4	5.6	5.6	5.6	5.9	6.0	6.1
California	1.5	3.7	4.0	4.5	4.9	5.1	5.3	5.4	5.4	5.5	5.6	5.6
Texas	5.6	5.8	6.6	6.9	6.9	6.9	7.1	7.3	7.5	7.6	7.7	7.7

- (a). Find the test statistic.
- (b). Find the P -value.
- (c). Determine whether to reject or fail to reject the claim.
- (d). State your conclusion in the context of the problem.
- (e). Do the amounts of arsenic appear to be different in the different states? Given that the amounts of arsenic in the samples from Texas have the highest mean, can we conclude that brown rice from Texas poses the greatest health problem?