

T-TEST EXAMPLE

EXAMPLE 1

Hypothetical sample of 3 scores from each course (maximum total on each test = 60 points)

<u>Abnormal</u>	<u>Personality</u>
10	25
15	30
20	35
15	30

t-Test: Two-Sample Assuming Equal Variances

	<i>Abnormal</i>	<i>Personality</i>
Mean	15	30
Variance	25	25
Observations	3	3
Pooled Variance	25	
Hypothesized Mean Difference	0	
df	4	
t Stat	-3.67	
P(T<=t) one-tail	0.01	
t Critical one-tail	2.13	
P(T<=t) two-tail	0.02	
t Critical two-tail	2.78	

EXAMPLE 2

Hypothetical sample of 3 scores from each course (maximum total on each test = 60 points)

	<u>Abnormal</u>	<u>Personality</u>
	0	15
	15	30
	30	45
Means	15	30

t-Test: Two-Sample Assuming Equal Variances

	<i>Abnormal</i>	<i>Personality</i>
Mean	15	30
Variance	225	225
Observations	3	3
Pooled Variance	225	
Hypothesized Mean Difference	0	
df	4	
t Stat	-1.22	
P(T<=t) one-tail	0.14	
t Critical one-tail	2.13	
P(T<=t) two-tail	0.29	
t Critical two-tail	2.78	

ANOVA EXAMPLE

EXAMPLE 1

Hypothetical sample of 3 scores from each course (maximum total on each test = 60 points)

	<u>Abnormal</u>	<u>Personality</u>	<u>Methods</u>
	10	25	40
	15	30	45
	20	35	50
Means	15	30	45

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abnormal	3	45	15	25
Personality	3	90	30	25
Methods	3	135	45	25

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1350	2	675	27	0.001	5.14
Within Groups	150	6	25			
Total	1500	8				

EXAMPLE 2

Hypothetical sample of 3 scores from each course (maximum total on each test = 60 points)

	<u>Abnormal</u>	<u>Personality</u>	<u>Methods</u>
	0	15	30
	15	30	45
	30	45	60
Means	15	30	45

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abnormal	3	45	15	225
Personality	3	90	30	225
Methods	3	135	45	225

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1350	2	675	3	0.125	5.14
Within Groups	1350	6	225			
Total	2700	8				