

B/W SEXES

Unpaired t test

Do the means of FEMALE and MALE differ significantly?

P value

The two-tailed P value is 0.1055, considered not significant.

$t = 1.629$ with 148 degrees of freedom.

95% confidence interval

Mean difference = 7.466 (Mean of MALE minus mean of FEMALE)

The 95% confidence interval of the difference: -1.592 to 16.523

Assumption test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

$F = 1.775$

The P value is 0.0203.

This test suggests that the difference between the two SDs is

significant. Since the t test assumes populations with equal

SDs, you should consider transforming your data (reciprocal or log),

selecting a nonparametric test, or selecting the alternate (Welch) t test.

Assumption test: Are the data sampled from Gaussian distributions?

The t test assumes that the data are sampled from populations that follow

Gaussian distributions. This assumption is tested using the method Kolmogorov and Smirnov:

Group	KS	P Value	Passed
normality test?			
FEMALE	0.06643	>0.10	Yes
MALE	0.09907	0.0278	No

At least one column failed the normality test with $P < 0.05$.

Consider using a nonparametric test or transforming the data (i.e. converting to logarithms or reciprocals).

Summary of Data

Parameter:	FEMALE	MALE
Mean:	39.643	47.109
# of points:	59	91
Std deviation:	22.607	30.120
Std error:	2.943	3.157
Minimum:	-0.08746	-1.998
Maximum:	98.769	102.49
Median:	42.212	50.559
Lower 95% CI:	33.751	40.826
Upper 95% CI:	45.536	53.393

* * *

STREAM V. NON-STREAM

Unpaired t test

Do the means of STREAM and NON-STREAM differ significantly?

P value

The two-tailed P value is < 0.0001 , considered extremely significant.

$t = 4.929$ with 148 degrees of freedom.

95% confidence interval

Mean difference = -25.800 (Mean of NON-STREAM minus mean of STREAM)

The 95% confidence interval of the difference: -36.143 to -15.456

Assumption test: Are the standard deviations equal?

The t test assumes that the columns come from populations with equal SDs.

The following calculations test that assumption.

$F = 1.331$

The P value is 0.3761 .

This test suggests that the difference between the two SDs is not significant.

Assumption test: Are the data sampled from Gaussian distributions?

The t test assumes that the data are sampled from populations that follow

Gaussian distributions. This assumption is tested using the method

Kolmogorov and Smirnov:

Group	KS	P Value	Passed
normality test?			
=====	=====	=====	
=====			
STREAM	0.09639	>0.10	Yes
NON-STREAM	0.07833	0.0677	Yes

At least one column failed the normality test with $P < 0.05$.

Consider using a nonparametric test or transforming the data (i.e. converting to logarithms or reciprocals).

Summary of Data

Parameter:	STREAM	NON-STREAM
Mean:	64.812	39.013
# of points:	30	120
Std deviation:	22.786	26.291
Std error:	4.160	2.400
Minimum:	11.938	-1.998
Maximum:	102.49	102.49
Median:	64.710	38.100
Lower 95% CI:	56.305	34.260
Upper 95% CI:	73.320	43.766

* * *