

## INDEX

### A

analysis of variance (see ANOVA)

### ANOVA

calculation of one-way -- with IFAMEANS

when to use --

average (see mean)

### C

### calculator

using -- for statistics

central tendency, measures of

-- and level of measurement

-- and normal distribution

(see also mean; median; mode)

Chi-square ( $\chi^2$ ) test

calculation for --

when to use --

### computer

-- adaptive testing (CAT)

using -- for statistics

(see also IFASTAT3; MDS(X); Omni Calc; PROX; Chapter 6)

concordant pairs

contingency table

control group

### correlation

-- and cause-effect relationship

-- and regression

-- coefficient

- of item and test overall

Pearson product moment -- coefficient  
 Spearman rank order -- coefficient  
 (see also gamma; Pearson's  $r$ ; Spearman's  $\rho$ )

#### critical value

-- of Chi-square  
 -- of  $t$   
 -- of  $t$  for a Scheffé test

#### D

##### data

-- entry (input)  
 -- file  
 raw --

##### degrees of freedom (d.f.)

##### dendrogram

##### discordant pairs

##### discriminating power

##### distribution

cumulative --  
 frequency --  
 normal --  
 response frequency --

#### E

##### experimental

-- design  
 independent groups --  
 matched pairs --  
 repeated measures --  
 -- group  
 -- procedure

#### F

##### F-ratio (see ANOVA)

##### factor analysis

##### factorial design

##### frequency

cumulative --

observed vs. expected -- (see Chi-square)

-- polygon

relative --

-- table

## G

gamma ( $\gamma$ )

calculation for --

when to use --

goodness of fit

## H

hierarchical cluster analysis

histogram

hypothesis

alternative --

directional (one-tailed) --

non-directional (two-tailed) --

null --

-- testing

## I

IFASTATS

IFACODE

IFACORR

IFACURVE

IFADATA

IFAMEANS

interval (level of measurement)

item

-- analysis

-- difficulty (calculation)

-- types

(see also discriminating power)

## L

language test

-- bank

-- battery  
 purposes of --  
 statistical analysis of --  
 (see also syntactic acceptability test)

latent trait theory

level of measurement

(see also interval; nominal; ordinal; ratio)

linear discriminant analysis

linear regression analysis

## M

MDS(X)

Mann-Whitney U test

when to use --

mean

calculation for --

calculation of -- with IFAMEANS

comparison of --s (see ANOVA; t-test; z-score)

median

determination of --

mode

determination of --

multidimensional scaling

multivariate analysis

(see also ANOVA)

## N

nominal (level of measurement)

non-parametric test

(cf. parametric test)

(see also sign test)

normal distribution (see distribution, normal)

## O

Omni Calc

ordinal (level of measurement)

## P

parameter

parametric test

(cf. non-parametric test)

Pearson's  $r$ 

calculation of --

population

-- vs. sample

principal components analysis

probability

-- level (see significance level)

proportion

proportional reduction in error (PRE)

PROX

## R

random

-- number tables

-- sample (see sample, random)

range

rank

-- of differences

-- order correlation coefficient (see Spearman's  $\rho$ )

ranking

Rasch model

ratio (level of measurement)

## S

sample

random --

representative --

-- size

stratified --

-- vs. population

sampling

-- bias

-- procedures

scattergram

**Scheffé test**

(see also ANOVA)

**significance**

-- level

**similarity matrix****sign test**

calculation for --

when to use --

**Spearman's rho ( $\rho$ )**

calculation for --

when to use --

**standard deviation**

calculation for --

calculation for -- of differences

calculation of -- with IFAMEANS

**standard error of differences**

calculation for --

**statistic**

descriptive --

inferential --

**subject****syntactic acceptability test****T****t-test**

calculation for --

calculation of -- with IFAMEANS

-- for independent samples

-- for matched pairs

when to use --

**t-value****test, language (see language test)****test (see specific topic heading)****translation constant****type I error****type II error**

## V

## variability, measures of

mean deviation

range

interquartile --

(see also standard deviation; variance)

## variable

dependent --

independent --

(see also interval; level of measurement; nominal; ordinal; ratio)

## variance

calculation for --

within-group -- vs. between-group -- (see ANOVA)

## W

## Wilcoxon signed ranks test

when to use --

## Y

## Yates' correction

## Z

## z-score

calculation of -- with IFAMEANS

-- for gamma

-- for sign test