

# Package ‘CATT’

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**Type** Package

**Title** The Cochran-Armitage Trend Test

**Version** 1.0

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**Description** The Cochran-Armitage trend test can be applied to a two by k contingency table. The test statistic ( $Z$ ) and p-value will be reported. A linear trend in the frequencies will be calculated, because the weights (0,1,2) will be used by default.

**License** GPL-3

**Depends** R (>= 3.3.2)

**Imports** stats

**LazyData** TRUE

**NeedsCompilation** no

**Repository** CRAN

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CATT *The Cochran-Armitage Trend Test*

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### Description

The Cochran-Armitage trend test can be applied to a two by k contingency table. The test statistic ( $Z$ ) and p-value will be reported. A linear trend in the frequencies will be calculated, because the weights (0,1,2) will be used by default.

**Usage**

```
CATT(binomial, ordinal, table)
```

**Arguments**

ordinal	the vector of the ordinal variable
binomial	the vector of the binomial variable
table	option, the contingency table of table(binomial, ordinal)

**Value**

Z	the test statistic
p. value	the p value of the hypothesis test

**Note**

Please feel free to contact us, if you have any advice and find any bug!

Reference: 1. Cochran, WG (1954). Some methods for strengthening the common chi-squared tests. *Biometrics*. International Biometric Society. 10 (4): 417-451. 2. Armitage, P (1955). Tests for Linear Trends in Proportions and Frequencies. *Biometrics*. International Biometric Society. 11 (3): 375-386.

**Author(s)**

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**Examples**

```
# type of data is variable
binomial=c(rep(0,20),rep(1,10),rep(0,20),rep(1,20),rep(0,20),rep(1,30))
ordinal=c(rep(0,30),rep(1,40),rep(2,50))
CATT(binomial=binomial,ordinal=ordinal)

# type of data is table
tbl=matrix(c(20,10,20,20,20,30),nrow=2)
CATT(table=tbl)
```

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