How do I use the CHITEST function in Google Sheets?

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The CHITEST function in Google Sheets is used to calculate the probability of a chi-square test. This function compares two sets of data and determines if there is a significant difference between them. To use the CHITEST function, select the cell where you want the result to appear, type in "=CHITEST(", and then select the first range of data, followed by a comma. Then, select the second range of data and close the parentheses. Press enter and the result will be displayed. This function is useful for conducting statistical analysis and determining the significance of differences between data sets.

CHITEST

Returns the probability associated with a Pearson's chi-squared test on the two ranges of data. Determines the likelihood that the observed categorical data is drawn from an expected distribution.

Sample Usage

```
CHITEST(A1:A5, B1:B5)
```

```
CHITEST(A1:D3, A5:D7)
```

Syntax

```
CHITEST(observed_range, expected_range)
```

`observed_range` - The counts associated with each category of data.

`expected_range` - The expected counts for each category under the null hypothesis.

Notes

`observed_range` and `expected_range` must both be ranges with the same number of rows and columns.

If any cell in either range is non-numeric, it and the corresponding cell in the other range do not count toward the calculation.

See Also

`CHIDIST`: Calculates the right-tailed chi-squared distribution, often used in hypothesis testing.

`CHIINV`: Calculates the inverse of the right-tailed chi-squared distribution.

`CHISQ.DIST`: Calculates the left-tailed chi-squared distribution, often used in hypothesis testing.

`CHISQ.DIST.RT`: Calculates the right-tailed chi-squared distribution, which is commonly used in hypothesis testing.

`FTEST`: Returns the probability associated with an F-test for equality of variances. Determines whether two samples are likely to have come from populations with the same variance.

`TTEST`: Returns the probability associated with t-test. Determines whether two samples are likely to have come from the same two underlying populations that have the same mean.

Example

Suppose you want to test the fairness of a 6-sided die. You count the number of times each side is rolled for 60 trials, and compare it to an expected distribution where each side is rolled 10 times. There is only a 5.1% chance that the die is actually fair.

	A	B
1	**Observed data**	**Expected data**
2	11	10
3	15	10
4	8	10
5	10	10
6	2	10
7	14	10
8	**Solution**	**Formula**
9	0.05137998348	=CHITEST(A1:A6, B1:B6)