Table 28-2 Chi-Square Goodness of Fit to a Known Distribution of Blood Types

Please Note: Error in text Table 28-2 (1), p. 418, under Test Statistics. Chi-square should be 13.425. The value calculated in the table is correct. It is shown correctly in this output.

```
*Nonparametric Tests: One Sample.
NPTESTS
  /ONESAMPLE TEST (BloodType) CHISQUARE(EXPECTED=CUSTOM(CATEGORIES=1 2 3 4
FREQUENCIES=0.39 0.19 0.05 0.37 ))
  /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE
  /CRITERIA ALPHA=0.05 CILEVEL=95.
```

Nonparametric Tests

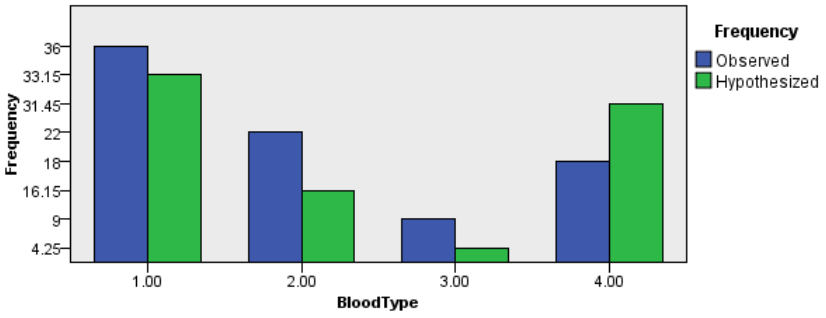
This test was run using Nonparametric Tests> One Sample. In SPSS, by double-clicking on the Hypothesis Test Summary, the results will be displayed. Settings: Choose Tests > Compare observed probabilities to hypothesized (Chi-Square Test) > Options: Enter Category 1- 0.39, Category 2 - 0.19, Category 3 - 0.05, Category 4 - 0.37). Results are shown below.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of BloodType occur with the specified probabilities.	One-Sample Chi-Square Test	.004	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

One-Sample Chi-Square Test



Total N	85
Test Statistic	13.425
Degrees of Freedom	3
Asymptotic Sig. (2-sided test)	.004

1. There are 1 cells (25%) with expected values less than 5. The minimum expected value is 4.250.

```
NPAR TESTS
  /CHISQUARE=BloodType
  /EXPECTED=.39 .19 .05 .37
  /MISSING ANALYSIS.
```

NPar Tests

This test was run using Nonparametric Tests > Legacy Dialogs > Chi-Square. Under Expected Values, the percentages for the four categories are added in the order of the categories in the data file.

Chi-Square Test

Frequencies

BloodType

	Observed N	Expected N	Residual
1.00	36	33.2	2.8
2.00	22	16.2	5.9
3.00	9	4.3	4.8
4.00	18	31.5	-13.4
Total	85		

Test Statistics

	BloodType
Chi-Square	13.425[a]
df	3
Asymp. Sig.	.004

a. 1 cells (25.0%) have expected frequencies less than 5. The minimum expected cell frequency is 4.3.