Rapport package team

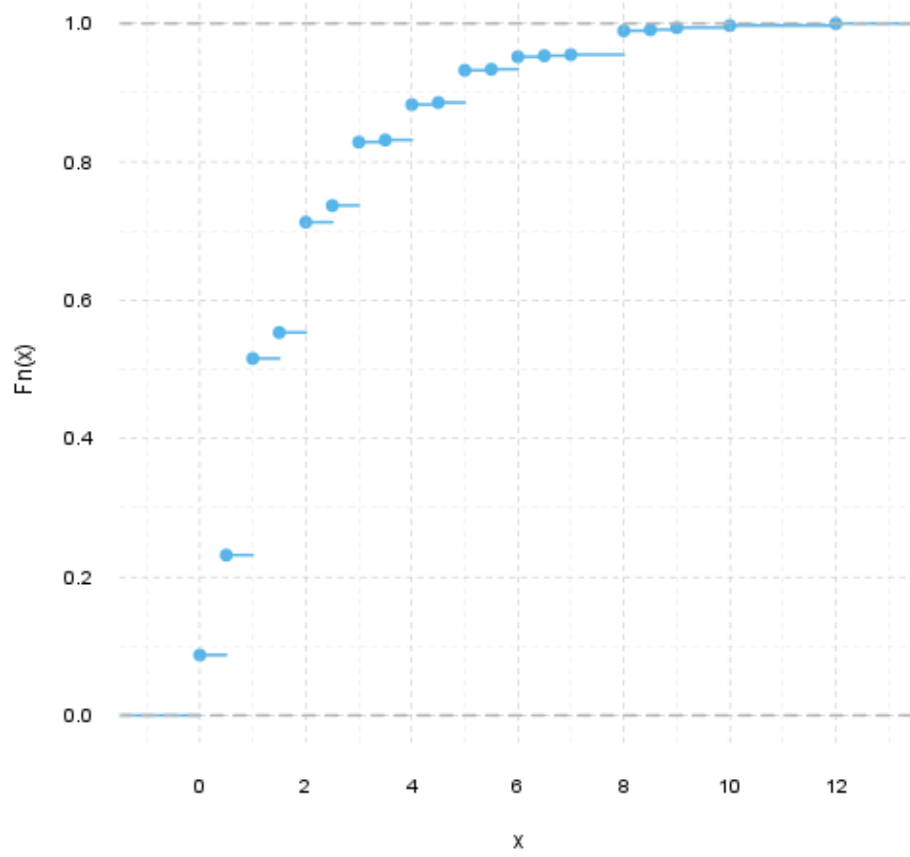Kolmogorov-Smirnov-test

2011-04-26 20:25 CET

Contents

Description

This template will run a Kolmogorov-Smirnov-test

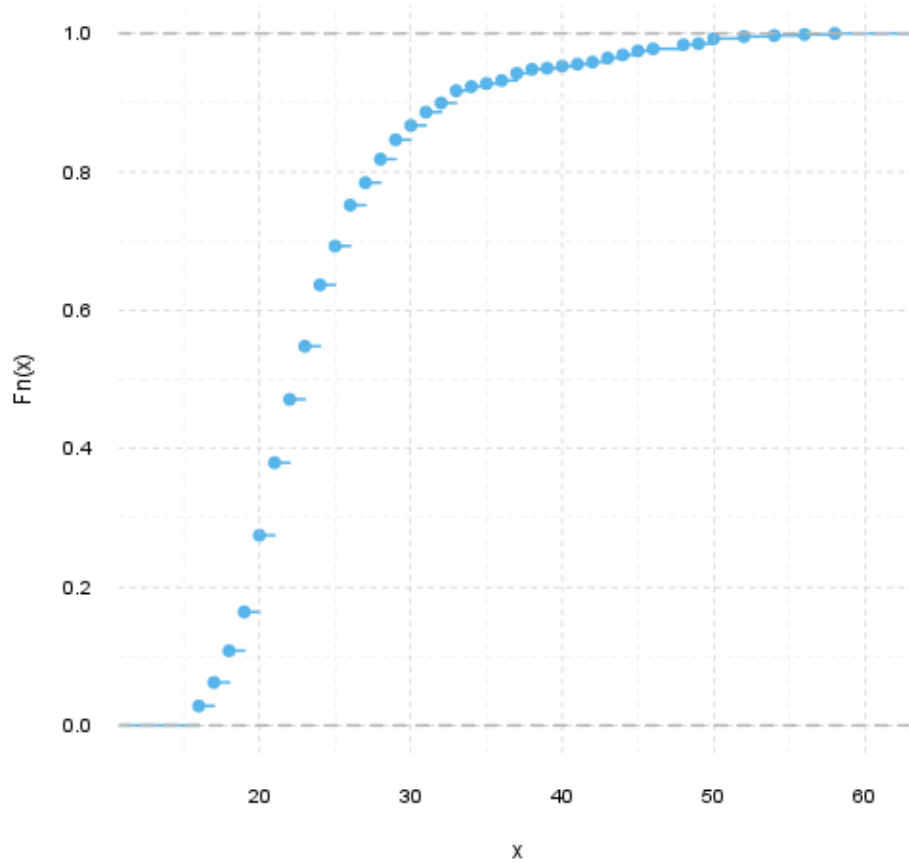**Introduction** Kolmogorov-Smirnov test is one of the most widely used non-parametric tests. With the help of that in this case we use to check if two continuous variables had the same distribution. We do not test that here, but there is a possibility to use that in the way to check if a sample/variable followed an expected distribution.

Distributions Before we use the K-S test to look at the possible statistical differences, it could be useful to see visually the distributions we want to observe. Below lie the Cumulative Distribution Functions of the variables we compared:

1

Cumulative Distribution of Internet usage for educational purposes (hou

mulative Distribution of Internet usage for educational purposes (hou

Test results   Now we will test if the Internet usage for educational purposes (hours per day) and the Age had statistically the same distribution.

Test statistic	P value	Alternative hypothesis
1	*0 * * **	two-sided

Table 1: Two-sample Kolmogorov-Smirnov test on Internet usage for educational purposes (hours per day) and Age

The requirements of the Kolmogorov-Smirnov Test test was not met, the approximation may be incorrect.

So the variables do not follow the same distribution, according to the Kolmogorov-
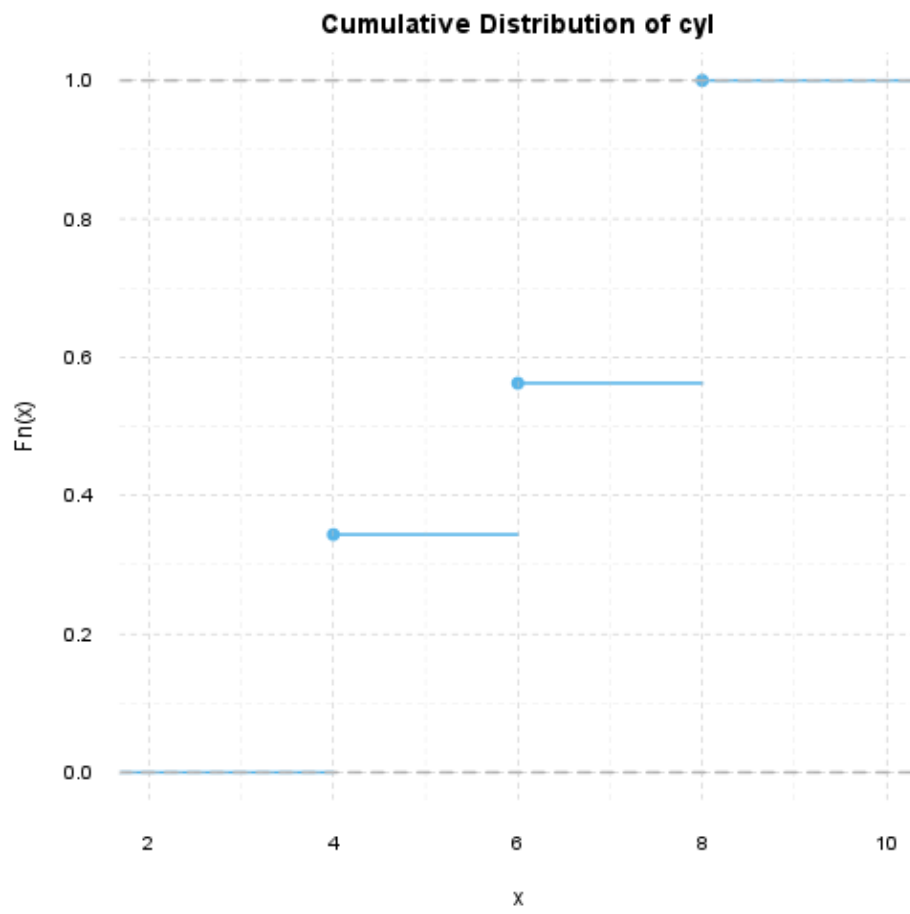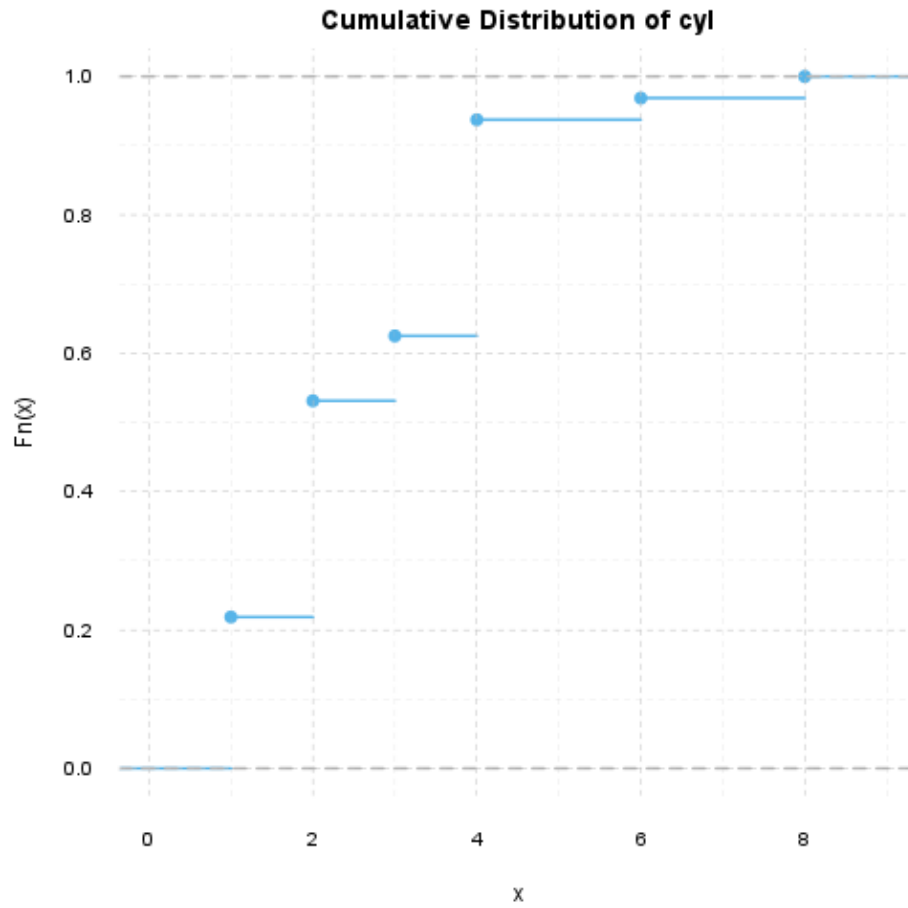
Smirnov test statistic.

Description

This template will run a Kolmogorov-Smirnov-test

Introduction   Kolmogorov-Smirnov test is one of the most widely used non-parametric tests. With the help of that in this case we use to check if two continuous variables had the same distribution. We do not test that here, but there is a possibility to use that in the way to check if a sample/variable followed an expected distribution.

Distributions   Before we use the K-S test to look at the possible statistical differences, it could be useful to see visually the distributions we want to observe. Below lie the Cumulative Distribution Functions of the variables we compared:

Cumulative Distribution of cyl

Cumulative Distribution of cyl

Test results Now we will test if the cyl and the carb had statistically the same distribution.

Test statistic	P value	Alternative hypothesis
0.625	*7.453e-06 * * **	two-sided

Table 2: Two-sample Kolmogorov-Smirnov test on cyl and carb

The requirements of the Kolmogorov-Smirnov Test test was not met, the approximation may be incorrect.

So the variables do not follow the same distribution, according to the Kolmogorov-Smirnov test statistic.

This report was generated with R (3.0.1) and rapport (0.51) in *0.729* sec on x86_64-unknown-linux-gnu platform.