

## Normality Test

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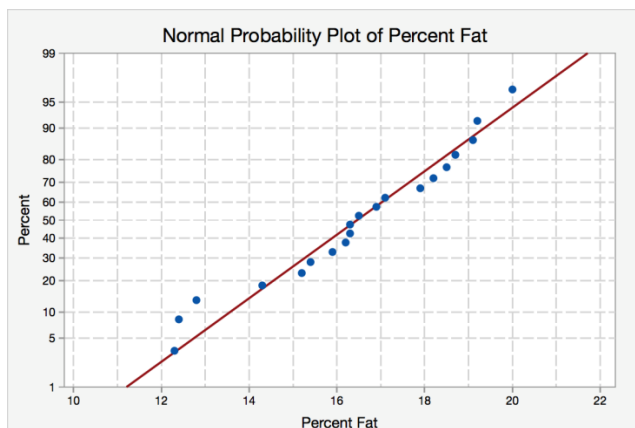
A scientist for a company that manufactures processed food wants to assess the percentage of fat in the company's bottled sauce. The advertised percentage is 15%. The scientist measures the percentage of fat in 20 random samples. Previous measurements found that the population standard deviation is 2.6%.

The scientist wants to verify the assumption of normality before performing a hypothesis test.

1. Open the sample data, [FatContent.MTW](#).
2. Open the normality test dialog box.
  - Mac: **Statistics > Summary Statistics > Normality Test**
  - PC: **STATISTICS > Normality Test**
3. In **Variable**, enter *Percent Fat*.
4. Click **OK**.

### Interpreting the results

The data points are relatively close to the fitted normal distribution line. The p-value is greater than the significance level of 0.05. Therefore, the scientist fails to reject the null hypothesis that the data do not follow the normal distribution.



#### Descriptive Statistics

| N  | Mean  | StDev      |
|----|-------|------------|
| 20 | 16.46 | 2.25817812 |

#### Anderson-Darling Test

Null hypothesis  $H_0$ : Data follow a normal distribution  
Alternative hypothesis  $H_1$ : Data do not follow a normal distribution

| AD-Value | P-Value |
|----------|---------|
| 0.34     | 0.4631  |