JMP® 9 Quick Guide

Instructions presume an open data table, default preference settings, and appropriately typed, user-specified variables of interest.
RMC = Click Right Mouse Button

	What	How
Graphing	Frequency Distribution	Analyze > Distribution (For categorical variables, frequencies are displayed. Otherwise, quantiles and moments are.)
	Bar Chart	Graph > Graph Builder > Drag Continuous Variable to Y and Categorical to X > RMC > Points > Change to > Bar *Or:* Graph > Chart
	Pie Chart	Graph > Chart > Options > Pie Chart
	Histogram	Analyze > Distribution
	Stem and Leaf Plot	Analyze > Distribution; select 🔽 Stem and Leaf
	Scatter Plot 2D	Graph > Graph Builder > Drag Continuous Variable to Y and another one to X *Or:* Analyze > Fit Y by X (Bivariate) *Or:* Graph > Overlay Plot
	Scatter Plot 3D	Graph > Scatterplot 3D
	Scatter Plot Matrix	Graph > Scatterplot Matrix *Or:* Analyze > Multivariate Methods > Multivariate
	Trellis Plot	Graph > Graph Builder > Drag Column to Y and one to X; Drag Nominal or Ordinal Column to Wrap
	Line Chart	Graph > Graph Builder > Drag Cont. Variable to Y and another one to X > RMC in graph > Smoother > Change to > Line *Or:* Graph > Overlay Plot; select 🔽 y options > Connect Thru Missing
	Box Plot - One Level	Graph > Graph Builder > Continuous column to Y > RMC (Right Mouse Click)> Points > Change to > Box Plot *Or:* Analyze > Distribution
	Box Plot - Two or More Levels	Graph > Graph Builder > Continuous column to Y and categorical to X > RMC > Points > Change to > Box Plot *Or:* Analyze > Fit continuous Y by categorical X; select 🔽 Display Options > Box Plot

Basic Statistics	Descriptive statistics	Analyze > Distribution; (basic stats are shown by default; to see more select ▾ Display Options > More Moments) *or* Tables > Summary *or* Tables > Tabulate
	z- or t- test	1-Sample: Analyze > Distribution; select ▾ Test Mean 2-Sample: Analyze > Fit Y by X; select ▾ t Test or Means/ANOVA/Pooled t Paired t: Analyze > Matched Pairs
	Testing Proportions *(make 0/1 indicator Nominal or Ordinal)*	1 Proportion: Analyze > Distribution; select ▾ Test Probabilities 2 Proportions: Analyze > Fit Y by X
	Contingency table – Chi-Square test	Analyze > Fit Y by X (both X and Y must be categorical)
	Covariance	Analyze > Multivariate Methods > Multivariate; select ▾ Covariance matrix
	Correlation	Analyze > Multivariate Methods > Multivariate *Or* Analyze > Fit Y by X > Density Ellipse
	Test for Normality/Goodness-of-fit	Analyze > Distribution; select ▾ Continuous Fit > Normal; select ▾ by Fitted Normal > Goodness of Fit

Probability & Random Variables	Probability Variables	On data table: 1. Select ▾ Columns > New Column; 2. RMC on new column > Formula; 3. Select Probability from Functions Window; 4. Select desired probability function. *Note: For more information on the expected parameters see Help under Probability Functions*
	Random Variables	On data table: 1. Select ▾ Columns > New Column; 2. RMC on new column > Column Info; 3. Click on drop down box next to Initialize Data > Random *or* On data table: 1. Select ▾ Columns > New Column; 2. RMC on new column > Formula; Select Random from Functions Window; 3. Select desired Random function. *Note: For more information on the expected parameters see help under Random Function*
	Distribution Fitting	Analyze > Distribution; select ▾ Continuous Fit, then select desired distribution(s).

Analysis of Variance	One-Way	Analyze > Fit Y by X; select ▼ Means/Anova (Y must be continuous; X categorical)		
	Two or more Factors	Analyze > Fit Model		
	Randomized Blocks	Analyze > Fit Y by X; include a categorical column in Block role		
	Multiple Comparison Methods	Analyze > Fit Y by X; select ▼ Means/Anova; select ▼ Compare Means		
	Test for Equal/Unequal Variances	Analyze > Fit Y by X; select ▼ Means/Anova; select ▼ Unequal Variances		

Regression	Scatter Plot	Analyze > Fit Y by X (Bivariate)	
	Simple Least Squares	One Variable: One or More Independent Variables:	Analyze > Fit continuous Y by continuous X; select ▼ Fit Line Analyze > Fit Model
	Logistic Regression	One Variable: One or more independent variables:	Analyze > Fit categorical Y by continuous X; select ▼ Fit Line Analyze > Fit Model
	Multiple Regression	Analyze > Fit Model	
	Stepwise Regression	Analyze > Fit Model > Personality – Select Stepwise	
	Residual Analysis	Analyze > Fit Model; Run Model; select ▼ Row Diagnostics *Or* Analyze > Fit Y by X; Select ▼ and choose a fit; Select ▼ from fit report and "Save Residuals" or "Plot residuals"	
	Interaction Plots	Analyze > Fit Model with interaction effects; Run Model; select ▼ Factor Profiling > Interaction Plots	
	Durbin-Watson Test	Analyze > Fit Model; Run; select ▼ Row Diagnostics > Durban Watson Test	

Nonparametric techniques	Wilcoxon Rank Sum Test	Analyze > Fit Y by X; select ▼ Nonparametric > Wilcoxon Test
	Fishers Sign Test (for 2x2 tables only)	Analyze > Fit categorical Y by categorical X
	Wilcoxon Signed Rank Sum Test	Analyze > Distribution on continuous X; select ▼ Test Mean > Check Wilcoxon Signed Rank Box
	Kruskal-Wallis Test	Analyze > Fit continuous Y by categorical X; select ▼ Nonparametric > Wilcoxon Test
	Spearman's ρ	Analyze > Multivariate Methods > Multivariate; select ▼ Nonparametric Correlations > Spearman's ρ

Time Series	Time Series Plot	Analyze > Modeling > Time Series
	Moving Averages	Analyze > Modeling > Time Series; select ▼ ARIMA
	Exponential Smoothing	Analyze > Modeling > Time Series; select ▼ Smoothing Models
	Holt-Winters Method	Analyze > Modeling > Time Series; select ▼ Smoothing Model > Winters Method

Data Mining	Decision Trees	Analyze > Modeling > Partition
	Clustering	Analyze > Multivariate Methods > Cluster
	Neural Networks	Analyze > Modeling > Neural
	Logistic & Multiple Regression	Analyze > Fit Model

Quality Control	Control Charts	Run Chart:	Graph > Control Chart > Run Chart
		X-bar:	Graph > Control Chart > XBar
		Individual Measurements (IR)	Graph > Control Chart > IR
		P Chart	Graph > Control Chart > P
		U Chart	Graph > Control Chart > U
		CUSUM:	Graph > Control Chart > CUSUM
	Pareto	Graph > Pareto Plot	
	Ishikawa ("Fishbone") Diagram	Graph > Diagram	
	Variability Chart (Multi-Vari)	Graph > Variability/Gauge Chart	
	Capability	Graph > Capability With additional graphs on same output: Graph > Control Chart > IR; check Capability Box. > OK, Fill in Specification Limits	

Design of Experiments (DOE)	Factorial Design	DOE > Full Factorial Design Or: DOE > Screening Design
	Screening Design	DOE > Screening Design
	Response Surface Design	DOE > Response Surface Design
	Sample Size and Power Calculations	DOE > Sample Size and Power