



MONROE

1700

SERIES

electronic calculators for statistics

LINEAR REGRESSION

$$r = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]}}$$

NORMAL PROBABILITY

$$P(z) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^z e^{-z^2/2} dz$$

BINOMIAL PROBABILITY

$$P(r) = \frac{N!}{r!(N-r)!} p^r q^{N-r}$$

**A MODULAR
CONCEPT
CALCULATORS
THAT CHANGE
AND GROW
WITH YOUR
NEEDS**

STANDARD DEVIATION

$$\sigma = \sqrt{\frac{\sum x^2 - (\sum x)^2/N}{N-1}}$$

LEAST SQUARES FIT —
POWER CURVE

$$b = \frac{N \sum (\ln x \ln y) - (\sum \ln x \sum \ln y)}{N \sum (\ln x)^2 - (\sum \ln x)^2}$$

$$a = e \exp \left[\frac{\sum \ln y}{N} - \frac{b \sum \ln x}{N} \right]$$

TREND LINE ANALYSIS

$$m = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sum (x - \bar{x})^2}$$

$$b = \bar{y} - m\bar{x}$$

CHI-SQUARE TEST

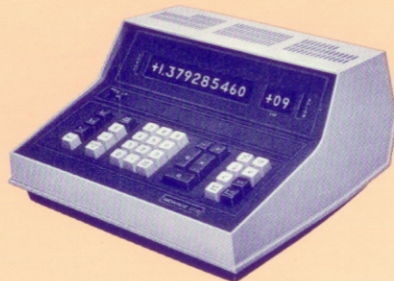
$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Monroe, The Calculator Company

1700

SERIES

MONROE MODEL



1710

ELECTRONIC
DISPLAY CALCULATOR



1766

ELECTRONIC PROGRAMMABLE
PRINTING CALCULATOR

**CALCULATORS
THAT CHANGE AND GROW
WITH YOUR NEEDS**

**Automatic Keyboard
Statistical and Summation
Functions**

- \sum_n^2 N, Σx , Σx^2 for ungrouped data
- $\sum_{n_p}^{2G}$ N, Σx , Σx^2 for grouped data
- XY N, Σx , Σx^2 , Σy , Σy^2 , Σxy for paired data

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- σ Standard deviation
- 2ND FUNC Mean

**Special Keyboard
Functions**

$1/x$, $\text{Log}_{10}/\text{Log}_e$, $X!$, $\sqrt{\quad}$, INT/FR, $10^x/e^x$

a^x , $1/x$, $\text{Log}_{10}/\text{Log}_e$, $X!$, $\sqrt{\quad}$, $|X|$, INT/FR

**Data Storage
Registers**

10

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Programmability

No (see options)

128 steps of learn-mode programming. Independent of data storage. Conditional, unconditional branching, looping, subroutine, jumping, decision-making.

Options

Keyboard Functions a^x , $|X|$, interchange register contents, store successive algebraic operations, single key σ and \bar{x} .

Programming Module 128 or 256 program steps with jumping, looping, subroutine, and decision-making.

CR-1 Card Reader Detachable card reader permits storage of programs on punched cards. Also allows additional machine instructions and decisions not available through the keyboard.

Additional 128 steps of program memory.

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1770

ELECTRONIC DISPLAY CALCULATOR



1775

ELECTRONIC PROGRAMMABLE DISPLAY CALCULATOR



1785

ELECTRONIC PROGRAMMABLE PRINTING CALCULATOR

- \sum_n^2 N, $\sum x$, $\sum x^2$ for ungrouped data
- \sum_{NP}^2 N, $\sum x$, $\sum x^2$ for grouped data
- XY N, $\sum x$, $\sum x^2$, $\sum y$, $\sum y^2$, $\sum xy$ for paired data
- LR Linear regression, correlation coefficient, slope, intercept
- Area under normal curve
- σ Standard deviation
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Immediate access to a large and ever-expanding Statistical Program Library

- 1036 Normal Probability Distribution, Subroutine
- 1072 Binomial Probability
- 1107 Gamma Function
- 1110 Probabilities Using Poisson Distribution Program
- 1170 Moving Average
- 2001 Two-Way Analysis of Variance
- 2004 Two-By-K Contingency Table
- 2005 Hypergeometric Distribution
- 2010 Beta Distribution
- 2011 Polynomial Regression, Two-Term Regression Model
- 2012 Weibull Distribution Parameter
- 2014 Bivariate Normal Distribution
- 2017 Histogramming
- 2021 Random Number Generator, Repeating Decimals
- 2027 Multinomial Distribution
- 2032 Exponential Distribution
- 2060 Latin Square
- 2061 Probability of Proportions
- 3006 Least Squares Fit, Exponential Curve
- 4501 Rational Function Regression

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