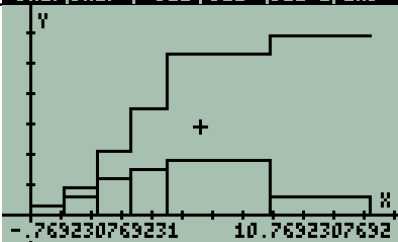
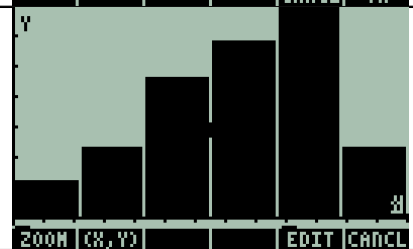
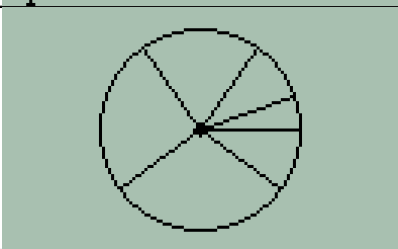
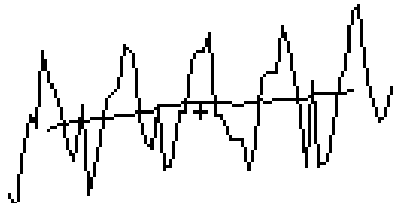
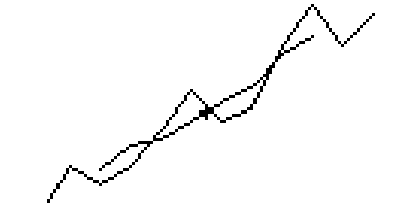
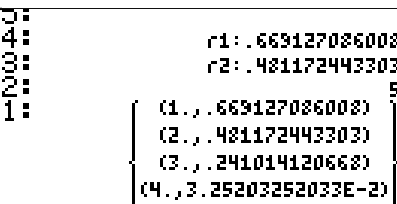
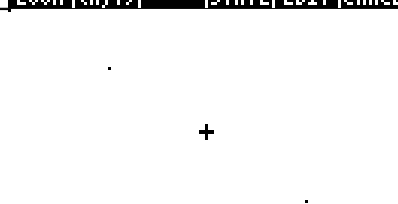
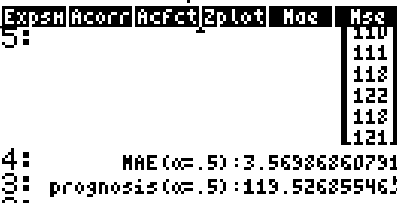
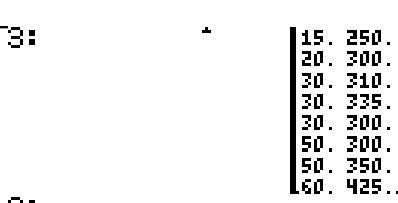


DSTAT

help	<p>DSTAT STATISTICAL DATA IN EDAT</p> <p>FOR 1 VAR: E1(xk) E2(ak,nk) E3(lk,rk,nk) xk,ak=VALUES, nk=FREQUENCIES, lk,rk=LEFT,RIGHT CLASS BORDER En n24 OR E11='X' FREQUENCYTABLE</p> <p>FOR 2 VARS X(a1) Y(b1): E2([x1 y1]..[xn yn]) EF=([X' b1 .. b1])</p> <p>+SKIP +DEL +DEL L +DEL L INS =</p>	<p>EF=([X' b1 .. b1]) [a1 n11 .. n1]) [ak nk1 .. nk1])</p> <p>4 FOR k VARS X1..Xk E=([x11..xk1]..[x1n..xkn])</p> <p>Eedit - + - EDIT EDAT Esex - + - EXAMPLES +Pars - + [nE..Nurtosis] CALCULATE ALL 1 VAR PARS</p> <p>+SKIP +DEL +DEL L +DEL L INS =</p>
help	<p>+Pars - + [nE..Nurtosis] CALCULATE ALL 1 VAR PARS +Plot - + - CHOOSE PLOT</p> <p>1 VAR STAT. PARAMETERS nE - + n NUMBER OF DATA Mean - + E ARITHMETIC MEAN Sdev - + s STAND. DEVIATION Var - + s^2 VARIANCE Psdev - + sd POP. ST. DEVIATION Pvar - + sd^2 POP. VARIANCE Mabsdev - + d MEAN ABS. DEVIATION</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>Mabsdev - + d MEAN ABS. DEVIATION Moment k a + Mk(a) k. MOMENT OF a Vcoeff - + Vc VAR. COEFF. Modus - + xd MODUS Pquant p + xp PERCENTILE (0<p<1) Range - + r RANGE Qdist - + Q QUANTIL-DISTANCE Mdist - + d MEDIAN-DISTANCE Gmean - + G GEOMETRIC MEAN Hmean - + H HARMONIC MEAN Skewness - + g1 SKEWNESS Nurtosis - + g2 NURTOSIS</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>
help	<p>NEW! PROGRAMS ONLY FOR E123 Hpoints - + [(ak,FK)] HISTOGRAM-POINTS Dpoints - + [(ak,FK)] DISTRIBUTION-POINTS Hplot - + HISTOGRAMPLOT Dplot - + DISTRIBUTIONPLOT Bplot - + BARPLOT [11] ARRAY WITH FREQUENCIES Sectplot - + SECTORPLOT (E1-3)</p> <p>CONC CONCENTRATION MEASURES EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>CONC CONCENTRATION MEASURES E1(xk) E2(ak,nk) E3(lk,rk,nk) ECex - + - EXAMPLES Lpoints - + [(FK,Lk)] (E1-3) Lconc - + LC LORENZCONC. (E1-3) Lplot - + LORENZPLOT (E1-3) Cpoints - + [(k,Ck)] ABSOLUTE CONCENTRATION (E1) Herfind - + HERFINDAHLINDEX(E1) Cplot - + CONC. PLOT (E1)</p> <p>4 CORE CORRELATION, REGRESSION EDAT Eedit Esex +Pars +Plot HelpD</p>
help	<p>CORE CORRELATION, REGRESSION EK EDAT CONTAINS k COLS EF FREQUENCY TABLE ECrex - + - EXAMPLES Ccorr - + RXY CORRELATION(E2,F) Ccov - + SXY COVARIANCE (E2,F) PCov - + SXYn POP. COVAR. (E2,F) SWYn:1/(n-1), SXY:1/n Cxyz - + RXYZ (E2) PARTIAL CORR. COEFF. Cspearman - + RS SPEARMAN CORR. FOR ORDINAL DATA (E2)</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>Cyule - + RY YULE COEFF. NOMINAL DATA (EF=2x2) Cpearson - + CP PEARSON COEFF. NOMINAL DATA (EF=nxn) Copearson - + COP CORRECTED PEARSON COEFF. (EF) Ccorner - + Cramer coeff. Linreg - + 'Y=F(X)' LINEAR REGRESSION (E2,EF) Waldreg - + 'Y=F(X)' WALD REGRESSION (E2) USES Arsort (ARRAYSORT)</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>
help	<p>LinWald: RESULT STORED IN EQ Predx Y0 + X0 predict X Predy X0 + Y0 predict Y Predx Predy USE EQ NLex - + EXAMPLES NLreg,NLwald CALLS Eedit, GENERAL NONLIN. REGR. SEE STATLIB NLreg FabX C3 + FabX C3 R^2 FX NONLINEAR REGRESSION R^2=COEFFICIENT OF DETERMINATION C3=C'F(X)'G(Y)'H-1(a)'H-1(b)'3 LIST WITH TRANSFORMATION FOR X,Y</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>LIST WITH TRANSFORMATION FOR X,Y BACK TRANSFORMATION TO a,b a=H-1(a), b=H-1(b), (E2,EF) NLwald FabX C3 + FabX C3 R^2 FX NONLINEAR WALD REGR (E2) Scatplot - + SCATTERPLOT (E2) SFctplot F(X) + F(X) FUNCT PLOT Resplot - + RESIDUALPLOT (E2) Mlex CHOOSEBOX EXAMPLE Mlinreg Mlinreg - + 'a+Ebxxh' 4 MULT. LIN. REGR. (E2) Mpry F C3 + F Y0 PREDICT Y</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>
help	<p>FROM CH01..3 Mres C3 F + C3 F R^2 COEFFICIENT OF DETERMINATION R^2=1-E(yi-fi)^2/E(yi-ymean)^2 FOR LINEAR MULTIPLE REGRESSION (E2)</p> <p>4 TIMESERIES E1,2 = EDAT WITH 1,2 COLUMNS ETex CHOOSBOX EXAMPLES Tplot - + TIMEPLOT OF YT (E1) Ymean o + E MEAN OF TIMESER. o = ORDER (E1) Ymplot o + PLOT OF YMEAN (E1) Yy - + E 1. DIFFERENCES (E1) Y2y - + E 2. DIFFERENCES (E1) Y4y - + E GROWTHRATE (E1) Ttex - + EXAMPLES FOR Ttrf STORES DATA IN EDAT 'Y=F(T,a,b)' C3 + 'Y=F(T)' F(T) G(Y) H-1(a) H-1(b)3 TRANSF. LIST (E1)</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>Tplot - + TIMEPLOT OF YT (E1) Ymean o + E MEAN OF TIMESER. o = ORDER (E1) Ymplot o + PLOT OF YMEAN (E1) Yy - + E 1. DIFFERENCES (E1) Y2y - + E 2. DIFFERENCES (E1) Y4y - + E GROWTHRATE (E1) Ttex - + EXAMPLES FOR Ttrf STORES DATA IN EDAT 'Y=F(T,a,b)' C3 + 'Y=F(T)' F(T) G(Y) H-1(a) H-1(b)3 TRANSF. LIST (E1)</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>
help	<p>Season o + E ELIMINATE SEASON FROM EDAT, o=ORDER (E1) Splot o + SEASONPLOT Expsh o + MAE PROGNOSIS EXP. SMOOTHING(E1) Acorr k + rk AUTOCORR. COEFF. OF ORDER k (E1) Acfct h + [(k,rk)] CALC. ALL rk UP TO h (E1) Zplot [(k,rk)] SCATTERPLOT (E1) Hae - + H, MEAN ABS. ERR. (E2) Hse - + H, MEAN SQ. ERR. (E2)</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>o - + ZUM... CALC. (E2) UM US UC UR UD U^2 V^2</p> <p>INDEX PRICE, MASS-INDICES Epq= [p01 q01 .. p11 q11] [p0k q0k .. p1k q1k] EIex - + - EXAMPLES NAME - + F INDEX (Epq) Flaspeyras Ppaasche Flone Fisher Pdrobisch Qlaspeyras Qpaasche Vindex</p> <p>EDAT Eedit Esex +Pars +Plot HelpD</p>
help	<p>MISC (SUB) PROGRAMS S+M E1+E2 SINGLE DATA TO MULTIPLE DATA (FREQ.) Arsort [11] + [11] SORTS ARRAY ACCORDING INCREASING 1. COL S+CL XMIN XWIDTH DBINS + E3 SINGLE TO CLASS CL+S E3 + E1 CLASS TO SINGLE P+M [11] * * * + [11] PROGRAM APPLIED TO ARRAY P+ai,j [11] [n n2 * * * + [11] PROGRAM APPLIED TO ELEMENT</p> <p>4 EDAT Eedit Esex +Pars +Plot HelpD</p>	<p>P+ai,j [11] [n n2 * * * + [11] PROGRAM APPLIED TO ELEMENT P+CN [11] * * * n + [11] PROGRAM TO n. COLUMN P+RN [11] * * * n + [11] PROGRAM TO n. ROW PC+EDAT PCDATA DC + EDAT DC=COLUMN-NUMBER EDAT PCDATA='NAME','1;2;...' '1 2' PC-DATA TRANSFERRED FROM PC TO HP49 (ASCII-MODE)</p> <p>4 EDAT Eedit Esex +Pars +Plot HelpD</p>

->Pars: calculate all statistical parameters	<pre> 1: data-number: 20. :Mean: 3.15 2: st.dev.: 1.75544266422 3: variance: 3.08157894737 4: pop.st.dev.: 1.71099386323 5: pop.var.: 2.9275 6: Mean abs.dev.: 1.28 7: var.coeff.: .557283385467 8: Modus: 4. :0.25-percentile: 2. 9: 0.5-percentile: 3. 10: 0.75-percentile: 4. :range: 7. 11: quart.dist.: 2. :Med.dist.: 12: 1.25 :geom.Mean: 0. :harm.Mean: 13: 1.25 :kurtosis: .44642334936 14: 15: +SKIP +DEL DEL+ DEL L INS + </pre>	<pre> 1: variance: 3.08157894737 2: pop.st.dev.: 1.71099386323 3: pop.var.: 2.9275 4: Mean abs.dev.: 1.28 5: var.coeff.: .557283385467 6: Modus: 4. :0.25-percentile: 2. 7: 0.5-percentile: 3. 8: 0.75-percentile: 4. :range: 7. 9: quart.dist.: 2. :Med.dist.: 10: 1.25 :geom.Mean: 0. :harm.Mean: 11: 1.25 :skewness: .60476333493 12: kurtosis: .44642334936 13: 14: +SKIP +DEL DEL+ DEL L INS + </pre>
->Plots: choose plot	<pre> 1: RAD NY2 DEC C= 'X' 2: {HOME DSTAT} USR 3: 4: Choose plot: 5: histogram: Hplot 6: distribution: Dplot 7: bar plot: Bplot 8: pie chart: Sectplot 9: 10: 11: 12: 13: 14: 15: 16: 17: 18: 19: 20: 21: 22: 23: 24: 25: 26: 27: 28: 29: 30: 31: 32: 33: 34: 35: 36: 37: 38: 39: 40: 41: 42: 43: 44: 45: 46: 47: 48: 49: 50: 51: 52: 53: 54: 55: 56: 57: 58: 59: 60: 61: 62: 63: 64: 65: 66: 67: 68: 69: 70: 71: 72: 73: 74: 75: 76: 77: 78: 79: 80: 81: 82: 83: 84: 85: 86: 87: 88: 89: 90: 91: 92: 93: 94: 95: 96: 97: 98: 99: 100: 101: 102: 103: 104: 105: 106: 107: 108: 109: 110: 111: 112: 113: 114: 115: 116: 117: 118: 119: 120: 121: 122: 123: 124: 125: 126: 127: 128: 129: 130: 131: 132: 133: 134: 135: 136: 137: 138: 139: 140: 141: 142: 143: 144: 145: 146: 147: 148: 149: 150: 151: 152: 153: 154: 155: 156: 157: 158: 159: 160: 161: 162: 163: 164: 165: 166: 167: 168: 169: 170: 171: 172: 173: 174: 175: 176: 177: 178: 179: 180: 181: 182: 183: 184: 185: 186: 187: 188: 189: 190: 191: 192: 193: 194: 195: 196: 197: 198: 199: 200: 201: 202: 203: 204: 205: 206: 207: 208: 209: 210: 211: 212: 213: 214: 215: 216: 217: 218: 219: 220: 221: 222: 223: 224: 225: 226: 227: 228: 229: 230: 231: 232: 233: 234: 235: 236: 237: 238: 239: 240: 241: 242: 243: 244: 245: 246: 247: 248: 249: 250: 251: 252: 253: 254: 255: 256: 257: 258: 259: 260: 261: 262: 263: 264: 265: 266: 267: 268: 269: 270: 271: 272: 273: 274: 275: 276: 277: 278: 279: 280: 281: 282: 283: 284: 285: 286: 287: 288: 289: 290: 291: 292: 293: 294: 295: 296: 297: 298: 299: 300: 301: 302: 303: 304: 305: 306: 307: 308: 309: 310: 311: 312: 313: 314: 315: 316: 317: 318: 319: 320: 321: 322: 323: 324: 325: 326: 327: 328: 329: 330: 331: 332: 333: 334: 335: 336: 337: 338: 339: 340: 341: 342: 343: 344: 345: 346: 347: 348: 349: 350: 351: 352: 353: 354: 355: 356: 357: 358: 359: 360: 361: 362: 363: 364: 365: 366: 367: 368: 369: 370: 371: 372: 373: 374: 375: 376: 377: 378: 379: 380: 381: 382: 383: 384: 385: 386: 387: 388: 389: 390: 391: 392: 393: 394: 395: 396: 397: 398: 399: 400: 401: 402: 403: 404: 405: 406: 407: 408: 409: 410: 411: 412: 413: 414: 415: 416: 417: 418: 419: 420: 421: 422: 423: 424: 425: 426: 427: 428: 429: 430: 431: 432: 433: 434: 435: 436: 437: 438: 439: 440: 441: 442: 443: 444: 445: 446: 447: 448: 449: 450: 451: 452: 453: 454: 455: 456: 457: 458: 459: 460: 461: 462: 463: 464: 465: 466: 467: 468: 469: 470: 471: 472: 473: 474: 475: 476: 477: 478: 479: 480: 481: 482: 483: 484: 485: 486: 487: 488: 489: 490: 491: 492: 493: 494: 495: 496: 497: 498: 499: 500: 501: 502: 503: 504: 505: 506: 507: 508: 509: 510: 511: 512: 513: 514: 515: 516: 517: 518: 519: 520: 521: 522: 523: 524: 525: 526: 527: 528: 529: 530: 531: 532: 533: 534: 535: 536: 537: 538: 539: 540: 541: 542: 543: 544: 545: 546: 547: 548: 549: 550: 551: 552: 553: 554: 555: 556: 557: 558: 559: 560: 561: 562: 563: 564: 565: 566: 567: 568: 569: 570: 571: 572: 573: 574: 575: 576: 577: 578: 579: 580: 581: 582: 583: 584: 585: 586: 587: 588: 589: 590: 591: 592: 593: 594: 595: 596: 597: 598: 599: 600: 601: 602: 603: 604: 605: 606: 607: 608: 609: 610: 611: 612: 613: 614: 615: 616: 617: 618: 619: 620: 621: 622: 623: 624: 625: 626: 627: 628: 629: 630: 631: 632: 633: 634: 635: 636: 637: 638: 639: 640: 641: 642: 643: 644: 645: 646: 647: 648: 649: 650: 651: 652: 653: 654: 655: 656: 657: 658: 659: 660: 661: 662: 663: 664: 665: 666: 667: 668: 669: 670: 671: 672: 673: 674: 675: 676: 677: 678: 679: 680: 681: 682: 683: 684: 685: 686: 687: 688: 689: 690: 691: 692: 693: 694: 695: 696: 697: 698: 699: 700: 701: 702: 703: 704: 705: 706: 707: 708: 709: 710: 711: 712: 713: 714: 715: 716: 717: 718: 719: 720: 721: 722: 723: 724: 725: 726: 727: 728: 729: 730: 731: 732: 733: 734: 735: 736: 737: 738: 739: 740: 741: 742: 743: 744: 745: 746: 747: 748: 749: 750: 751: 752: 753: 754: 755: 756: 757: 758: 759: 760: 761: 762: 763: 764: 765: 766: 767: 768: 769: 770: 771: 772: 773: 774: 775: 776: 777: 778: 779: 780: 781: 782: 783: 784: 785: 786: 787: 788: 789: 790: 791: 792: 793: 794: 795: 796: 797: 798: 799: 800: 801: 802: 803: 804: 805: 806: 807: 808: 809: 810: 811: 812: 813: 814: 815: 816: 817: 818: 819: 820: 821: 822: 823: 824: 825: 826: 827: 828: 829: 830: 831: 832: 833: 834: 835: 836: 837: 838: 839: 840: 841: 842: 843: 844: 845: 846: 847: 848: 849: 850: 851: 852: 853: 854: 855: 856: 857: 858: 859: 860: 861: 862: 863: 864: 865: 866: 867: 868: 869: 870: 871: 872: 873: 874: 875: 876: 877: 878: 879: 880: 881: 882: 883: 884: 885: 886: 887: 888: 889: 890: 891: 892: 893: 894: 895: 896: 897: 898: 899: 900: 901: 902: 903: 904: 905: 906: 907: 908: 909: 910: 911: 912: 913: 914: 915: 916: 917: 918: 919: 920: 921: 922: 923: 924: 925: 926: 927: 928: 929: 930: 931: 932: 933: 934: 935: 936: 937: 938: 939: 940: 941: 942: 943: 944: 945: 946: 947: 948: 949: 950: 951: 952: 953: 954: 955: 956: 957: 958: 959: 960: 961: 962: 963: 964: 965: 966: 967: 968: 969: 970: 971: 972: 973: 974: 975: 976: 977: 978: 979: 980: 981: 982: 983: 984: 985: 986: 987: 988: 989: 990: 991: 992: 993: 994: 995: 996: 997: 998: 999: 1000: </pre>	
Histogram, distribution		
Barplot		
piechart		
mean, (pop.) standard deviation of single data (1s)	<pre> 1: Mean: 1.591 2: st.dev.: 2.93616290958E-2 3: pop.st.dev.: 2.86181760425E-2 4: Psdev Pvar Habsd Hohen Vcoef Modus 5: 1.58 6: 1.61 7: 1.63 8: 1.56 9: 1.58 10: 1.62 11: 1.63 12: 1.63 </pre>	<pre> 1: variance: 8.62105263158E-4 2: pop.var.: .000819 3: Mean abs.dev.: .025 4: Modus: 1.58 5: 0.25-quantil: 1.57 6: range: .09 7: Med.dist.: .025 8: geom.Mean: 1.33879037614 9: kurtosis: (-1.03273794988) 10: Skewn Kurto Hpoen Dpoen Hplot Dplot 11: 1.58 12: 1.61 13: 1.63 14: 1.56 15: 1.58 16: 1.62 17: 1.63 18: 1.63 </pre>
further statistical parameters(1s)		
mean, (pop.) standard deviation of single data (1s)	<pre> 1: Mean: 1.591 2: st.dev.: 2.93616290958E-2 3: pop.st.dev.: 2.86181760425E-2 4: Psdev Pvar Habsd Hohen Vcoef Modus 5: 1.58 6: 1.61 7: 1.63 8: 1.56 9: 1.58 10: 1.62 11: 1.63 12: 1.63 </pre>	<pre> 1: variance: 8.62105263158E-4 2: pop.var.: .000819 3: Mean abs.dev.: .025 4: Modus: 1.58 5: 0.25-quantil: 1.57 6: range: .09 7: Med.dist.: .025 8: geom.Mean: 1.33879037614 9: kurtosis: (-1.03273794988) 10: Skewn Kurto Hpoen Dpoen Hplot Dplot 11: 1.58 12: 1.61 13: 1.63 14: 1.56 15: 1.58 16: 1.62 17: 1.63 18: 1.63 </pre>
further statistical parameters(1s)		
mean, (pop.) standard deviation of single data (1s)	<pre> 1: Mean: 1.591 2: st.dev.: 2.93616290958E-2 3: pop.st.dev.: 2.86181760425E-2 4: Psdev Pvar Habsd Hohen Vcoef Modus 5: 1.58 6: 1.61 7: 1.63 8: 1.56 9: 1.58 10: 1.62 11: 1.63 12: 1.63 </pre>	<pre> 1: variance: 8.62105263158E-4 2: pop.var.: .000819 3: Mean abs.dev.: .025 4: Modus: 1.58 5: 0.25-quantil: 1.57 6: range: .09 7: Med.dist.: .025 8: geom.Mean: 1.33879037614 9: kurtosis: (-1.03273794988) 10: Skewn Kurto Hpoen Dpoen Hplot Dplot 11: 1.58 12: 1.61 13: 1.63 14: 1.56 15: 1.58 16: 1.62 17: 1.63 18: 1.63 </pre>
further statistical parameters(1s)		
mean, (pop.) standard deviation of data with frequencies (1s)	<pre> 1: Mean: 3.15 2: st.dev.: 1.75544266422 3: pop.st.dev.: 1.71099386323 4: Psdev Pvar Habsd Hohen Vcoef Modus 5: 0 1 6: 1 2 7: 2 4 8: 3 5 9: 4 6 10: 5 7 11: 6 2 12: 7 1 </pre>	<pre> 1: Mean abs.dev.: 1.28 2: var.coeff.: .557283385467 3: Modus: 4. 4: 0.5-quantil: 3. 5: range: 7. 6: quart.dist.: 2. 7: skewness: .60476333493 8: kurtosis: .44642334936 9: Skewn Kurto Hpoen Dpoen Hplot Dplot 10: 1.28 11: 1.25 12: 1.25 13: 1.25 14: 1.25 15: 1.25 16: 1.25 17: 1.25 18: 1.25 </pre>
further statistical parameters(1s)		
mean, (pop.) standard deviation of data with classes (1s)	<pre> 1: Mean: 2.5 2: st.dev.: 1.8618986725 3: pop.st.dev.: 1.80277563773 4: Psdev Pvar Habsd Hohen Vcoef Modus 5: 0 2 8 6: 1 4 5 7: 2 6 2 8: 3 6 8 1 </pre>	<pre> 1: Mean abs.dev.: 1.5 2: var.coeff.: .7447559469 3: Modus: 1. 4: 0.5-quantil: 2. 5: range: 8. 6: quart.dist.: 2.6 7: geom.Mean: 1.94666073987 8: skewness: 1.02406190072 9: kurtosis: .13017751479 10: Skewn Kurto Hpoen Dpoen Hplot Dplot 11: 1.5 12: 1.5 13: 1.5 14: 1.5 15: 1.5 16: 1.5 17: 1.5 18: 1.5 </pre>
further statistical parameters(1s)		

mean, (pop.) standard deviation of frequency table (1s)	<pre> 7: 6: 5: 4: X 1 5 13 5 20 30 0 15 10 20 0 25 0 10 10 3: Mean:112. 4.63 2: st.dev.:17.8495962709 3.33930 1: pop.st.dev.:17.81024967591 3. Psdew Pvar Hobed Homen Vocof Hodus </pre>	<pre> 9: Mean abs.dev.:17. 2.163 8: 2.Moment(3):1192. 13.63 7: Modus:25 53 6: 0.75-quantil:115 53 5: quart.dist.:110 43 4: med.dist.:17. 2.3 3: harm.Mean:17.8125 2.338129490 2: skewness:1.579314407566 1.230 1: kurtosis:-1.13571620532 1.40 Skewn Kurtz Hpoen Dpoen Hplot Dplot </pre>
Hplot, Dplot: Histogram and distribution plot of data with frequencies (3s)		
Hplot, Dplot of data with classes (3s)		
Lpoints, Lconc, Herfind: Lorenz concentration, Herfindahl index of data with frequencies (1s)	<pre> 7: 6: 5: 4: 1. 40. 2. 30. 3. 20. 4. 10. 3: ((0.,0.) (1.4,.2) (2.7,.5) (3.9,.8) 2: Lorenz conc.:.27 1: Herfindahl index:.0125 Cpoin Herfa Cplot ECRex Corr Cov </pre>	<pre> 5: 4: 2. 6. 30. 6. 8. 50. 8. 10. 70. 10. 15. 30. 15. 20. 10. 20. 30. 10. 3: ((0.,0.) (1.5,6.31578947368E-1 2: Lorenz conc.:.244736842104 1: Herfindahl index:.0062603878 Cpoin Herfa Cplot ECRex Corr Cov </pre>
Lplot: Lorenz plot (2s) data with frequencies		
Cplot: plot absolute concentration (2s)		
correlation, covariance of data with frequencies (0.2s)	<pre> 3: 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 2: correlation:.881859501578 1: covariance:1050. Herfa Cplot ECRex Corr Cov Cxyz </pre>	<pre> 7: 6: 5: 4: X 150 450 750 1050 20 101 53 0 0 60 36 215 13 8 100 3 14 35 62 3: 2: correlation:.624644278829 1: covariance:5132.5542571 Herfa Cplot ECRex Corr Cov Cxyz </pre>
of frequency table (2s)	<pre> 8: 7: 6: 5: 4: 51 35 18 148 36 12 3: Pearson:.26352054583 2: corr. Pearson:.372674329876 1: Cramer:.273176234284 Csped Cvult Cpear Coped Ccranh Linne </pre>	<pre> 2: 10 240 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 1: Spearman:.878508935817 Csped Cvult Cpear Coped Ccranh Linne </pre>
Pearson correlation (1s)	<pre> 8: 7: 6: 5: 4: 51 35 18 148 36 12 3: Pearson:.26352054583 2: corr. Pearson:.372674329876 1: Cramer:.273176234284 Csped Cvult Cpear Coped Ccranh Linne </pre>	<pre> 2: 10 240 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 1: Spearman:.878508935817 Csped Cvult Cpear Coped Ccranh Linne </pre>
Spearman rank correlation (2s)	<pre> 8: 7: 6: 5: 4: 51 35 18 148 36 12 3: Pearson:.26352054583 2: corr. Pearson:.372674329876 1: Cramer:.273176234284 Csped Cvult Cpear Coped Ccranh Linne </pre>	<pre> 2: 10 240 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 1: Spearman:.878508935817 Csped Cvult Cpear Coped Ccranh Linne </pre>
Pearson correlation (1s)	<pre> 8: 7: 6: 5: 4: 51 35 18 148 36 12 3: Pearson:.26352054583 2: corr. Pearson:.372674329876 1: Cramer:.273176234284 Csped Cvult Cpear Coped Ccranh Linne </pre>	<pre> 2: 10 240 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 1: Spearman:.878508935817 Csped Cvult Cpear Coped Ccranh Linne </pre>
Spearman rank correlation (2s)	<pre> 8: 7: 6: 5: 4: 51 35 18 148 36 12 3: Pearson:.26352054583 2: corr. Pearson:.372674329876 1: Cramer:.273176234284 Csped Cvult Cpear Coped Ccranh Linne </pre>	<pre> 2: 10 240 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 1: Spearman:.878508935817 Csped Cvult Cpear Coped Ccranh Linne </pre>
linear, Wald regression (1s)	<pre> 3: 15 250 20 300 30 310 30 335 30 300 50 300 50 350 60 425 2: 207.049180328+3.09836065574*X 1: 210.+3.18 Waldr Predx Predy Ltex Ltrf Wtrf </pre>	
Slinplot: Scatter and line plot (5s)		

PredX,Y: predict X, Y (0.2s)	<pre> 207.049120328+3.09236065574*X 30 X: (-57.1428571429) 20 Y: 269.016393443 Holdr PredX PredY Ltex Ltrf Htrf </pre>	<pre> X 150 450 750 1050 20 101 53 0 0 60 96 215 13 8 100 3 14 35 62 1: 28.201507539+7.24123417024*X Holdr PredX PredY Ltex Ltrf Htrf </pre>
linear regression of frequency table (1s)	<pre> X 150. 450. 750. 1050. 20. 101. 53. 0. 0. 60. 96. 215. 13. 8. 100. 3. 14. 35. 62. 4: Y=a*X^b 3: (LN(X) LN(Y) a^b) 2: R^2: .322016227628 1: Y=25.9621087*X^671741578 Holdr PredX PredY Ltex Ltrf Htrf </pre>	<pre> X 150 450 750 1050 20 101 53 0 0 60 96 215 13 8 100 3 14 35 62 4: Y=a*X^b 3: (LN(X) LN(Y) a^b) 2: R^2: .263894019135 1: Y=131.5791649*X^252856613 Holdr PredX PredY Ltex Ltrf Htrf </pre>
NLreg: non linear regression (4s)	<pre> X 150. 450. 750. 1050. 20. 101. 53. 0. 0. 60. 96. 215. 13. 8. 100. 3. 14. 35. 62. 4: Y=a*X^b 3: (LN(X) LN(Y) a^b) 2: R^2: .322016227628 1: Y=25.9621087*X^671741578 Holdr PredX PredY Ltex Ltrf Htrf </pre>	<pre> X 150 450 750 1050 20 101 53 0 0 60 96 215 13 8 100 3 14 35 62 4: Y=a*X^b 3: (LN(X) LN(Y) a^b) 2: R^2: .263894019135 1: Y=131.5791649*X^252856613 Holdr PredX PredY Ltex Ltrf Htrf </pre>
Nlwald: nonlinear Waldregr. (4s)	<pre> X 150. 450. 750. 1050. 20. 101. 53. 0. 0. 60. 96. 215. 13. 8. 100. 3. 14. 35. 62. 4: Y=a*X^b 3: (LN(X) LN(Y) a^b) 2: R^2: .322016227628 1: Y=25.9621087*X^671741578 Holdr PredX PredY Ltex Ltrf Htrf </pre>	<pre> X 150 450 750 1050 20 101 53 0 0 60 96 215 13 8 100 3 14 35 62 4: Y=a*X^b 3: (LN(X) LN(Y) a^b) 2: R^2: .263894019135 1: Y=131.5791649*X^252856613 Holdr PredX PredY Ltex Ltrf Htrf </pre>
Mlinreg: multiple linear regression (1s)	<pre> X 120 .6 11 60 1.2 9 60 1. 6 30 .7 6 120 .5 1: .1325+.1039*X1+-.0012253*X2 Mres Ltex Ltrf Htrf Ltex Ltrf Htrf </pre>	<pre> X 120 .6 11 60 1.2 9 60 1. 6 30 .7 6 120 .5 1: .1325+.1039*X1+-.0012253*X2 Mres Ltex Ltrf Htrf Ltex Ltrf Htrf </pre>
Mpry: predict y (0.2s)	<pre> X 120 .6 11 60 1.2 9 60 1. 6 30 .7 6 120 .5 1: .1325+.1039*X1+-.0012253*X2 Mres Ltex Ltrf Htrf Ltex Ltrf Htrf </pre>	<pre> X 120 .6 11 60 1.2 9 60 1. 6 30 .7 6 120 .5 1: .1325+.1039*X1+-.0012253*X2 Mres Ltex Ltrf Htrf Ltex Ltrf Htrf </pre>
Mres: multiple resolution (4s)	<pre> X 120 .6 11 60 1.2 9 60 1. 6 30 .7 6 120 .5 1: .1325+.1039*X1+-.0012253*X2 Mres Ltex Ltrf Htrf Ltex Ltrf Htrf </pre>	<pre> X 120 .6 11 60 1.2 9 60 1. 6 30 .7 6 120 .5 1: .1325+.1039*X1+-.0012253*X2 Mres Ltex Ltrf Htrf Ltex Ltrf Htrf </pre>
Tplot: plot of time series (4s)		
Ymplot: plot of 12 mean (8s)		
Tplot, Splot: seasonal plot (4s)		
Acorr: auto correlation (0.5s)	<pre> r1: .669127026002 r2: .481172443303 5 (1., .669127026002) (2., .481172443303) (3., .241014120662) (4., 3.25203252033E-2) (5., -.131044073593) Expsm Acorr Acfc Zplot MAE Mse </pre>	<pre> r1: .669127026002 r2: .481172443303 5 (1., .669127026002) (2., .481172443303) (3., .241014120662) (4., 3.25203252033E-2) (5., -.131044073593) Expsm Acorr Acfc Zplot MAE Mse </pre>
Acfc: auto correlation function (1s)	<pre> r1: .669127026002 r2: .481172443303 5 (1., .669127026002) (2., .481172443303) (3., .241014120662) (4., 3.25203252033E-2) (5., -.131044073593) Expsm Acorr Acfc Zplot MAE Mse </pre>	<pre> r1: .669127026002 r2: .481172443303 5 (1., .669127026002) (2., .481172443303) (3., .241014120662) (4., 3.25203252033E-2) (5., -.131044073593) Expsm Acorr Acfc Zplot MAE Mse </pre>
Zplot: plot auto correlation (1s)	<pre> r1: .669127026002 r2: .481172443303 5 (1., .669127026002) (2., .481172443303) (3., .241014120662) (4., 3.25203252033E-2) (5., -.131044073593) Expsm Acorr Acfc Zplot MAE Mse </pre>	<pre> r1: .669127026002 r2: .481172443303 5 (1., .669127026002) (2., .481172443303) (3., .241014120662) (4., 3.25203252033E-2) (5., -.131044073593) Expsm Acorr Acfc Zplot MAE Mse </pre>
Expsm: exponential smoothing (0.5s)	<pre> MAE (α=.5): 3.56386260791 prognosis (α=.5): 119.526855462 MAE (α=.2): 3.41158521527 prognosis (α=.2): 120.516609632 Seqs Splot Expsm Acorr Acfc Zplot MAE Mse </pre>	<pre> MAE (α=.5): 3.56386260791 prognosis (α=.5): 119.526855462 MAE (α=.2): 3.41158521527 prognosis (α=.2): 120.516609632 Seqs Splot Expsm Acorr Acfc Zplot MAE Mse </pre>
Mae, Mse: mean absolute, square error (0.5s)	<pre> MAE (α=.5): 3.56386260791 prognosis (α=.5): 119.526855462 MAE (α=.2): 3.41158521527 prognosis (α=.2): 120.516609632 Seqs Splot Expsm Acorr Acfc Zplot MAE Mse </pre>	<pre> MAE (α=.5): 3.56386260791 prognosis (α=.5): 119.526855462 MAE (α=.2): 3.41158521527 prognosis (α=.2): 120.516609632 Seqs Splot Expsm Acorr Acfc Zplot MAE Mse </pre>
Laspeyre, Paasche price index (0.3s)	<pre> 12 10 11.4 11 11.3 12 1 50 1.1 48 1.2 45 2 5 7.7 6 2.6 4 PI Laspeyres: {1.02857142857} PI Paasche: {1.06857142857} S←M Arson S←CL CL←S P←M P←CL </pre>	<pre> 12 10 11.4 11 11.3 12 1 50 1.1 48 1.2 45 2 5 7.7 6 2.6 4 PI Laspeyres: {1.02857142857} PI Paasche: {1.06857142857} S←M Arson S←CL CL←S P←M P←CL </pre>
Quantity, value index (0.3s)	<pre> 12 10 11.4 11 11.3 12 1 50 1.1 48 1.2 45 2 5 7.7 6 2.6 4 PI Laspeyres: {1.02857142857} PI Paasche: {1.06857142857} S←M Arson S←CL CL←S P←M P←CL </pre>	<pre> 12 10 11.4 11 11.3 12 1 50 1.1 48 1.2 45 2 5 7.7 6 2.6 4 PI Laspeyres: {1.02857142857} PI Paasche: {1.06857142857} S←M Arson S←CL CL←S P←M P←CL </pre>
S↔M: single to multiple data (0.5s)	<pre> RAD XYZ DEC R= 'X' {HOME DSTAT} USR 2: 1: GETE SAVE S←M Arson S←CL CL←S </pre>	<pre> RAD XYZ DEC R= 'X' {HOME DSTAT} USR 2: 1: GETE SAVE S←M Arson S←CL CL←S </pre>
CL→S, S→CL: classes to single data (0.3s)	<pre> RAD XYZ DEC R= 'X' {HOME DSTAT} USR 2: 1: GETE SAVE S←M Arson S←CL CL←S </pre>	<pre> RAD XYZ DEC R= 'X' {HOME DSTAT} USR 2: 1: GETE SAVE S←M Arson S←CL CL←S </pre>

<p>Arsort: sort array to ascending first column (0.5s)</p> <p>P→CN: program to column N (0.2s)</p>	<pre> 4: 3: 2: 1: [2 3] [1 1] [1 2] [3 5] [1 1] [1 2] [2 3] [3 5] S←H Arsort S←CL CL←S P←H P→aij </pre>	<pre> 4: 3: 2: 1: « LN » [LN(2) 3] [0 2] [0 1] [LN(3) 5] P←CN P←RN PC←ED E←STR EF←EH EF←EV </pre>
<p>PC→ΣDAT: PC string to array with n columns (0.5s)</p> <p>Σ→STR: array to string for PC (0.2s)</p>	<pre> 7: 6: 5: 4: 3: 2: 1: "1 2 3 4 5 6" [1 2] [3 4] [5 6] P←CN P←RN PC←ED E←STR EF←EH EF←EV </pre>	<pre> 4: 3: 2: 1: [1 2] [3 4] [5 6] "1 2" =UO 2 4 6 P←CN P←RN PC←ED E←STR EF←EH EF←EV </pre>
<p>P→aij: program to element i j (0.5s)</p> <p>Σf→ΣX,Y: frequency table to data for X, Y (0.2s)</p>	<pre> 5: 4: 3: 2: 1: [1 2] [3 4] [5 6] [1 2] « EXP » [1 2] [3 4] [5 6] S←H Arsort S←CL CL←S P←H P→aij </pre>	<pre> 4: 3: 2: 1: [8 1 5 13] [5 20 30 0] [15 10 20 0] [25 0 10 10] [5 50.] [15 30.] [25 20.] [1 30.] [5 60.] [13 10.] P←CN P←RN PC←ED E←STR EF←EH EF←EV </pre>