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#
# 2015 EXAM DATA SETS
#
# MA4605 Set Up Script
# Copy Everything on this document - "CNTL + A" +"CNTL + C"
# Go to your R console and Paste it all in - "CNTL + V"
#
# Run All of this Code once and once only

################################################

# Older Data Sets will have 2 digits.
# 2015 Data Sets will have 3 digits and begin with X.
#
# IMPORTANT: DAT08 and X008 are two different data sets
################################################
#
#  Any Additional Packages are loaded by these code segments
#
library(MASS);
# You can use "rlm()"
#
library(nlme);
# This is for some additional data sets
#
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set.seed(0824 );X001 <- rnorm(15,mean=6,sd=2);
X002 <- exp(X001)/1000;
X003 <- warpbreaks$breaks;
X004 <- factor(c("A","B","C","D"),levels=c("A","B","C","D"));
X005 <- c(44, 36, 56, 38, 63, 89, 58, 37, 41, 54, 71, 24, 51, 49);
X006 <- rep(X004,each=6);
X007 <- factor(c("H","L","M"),levels=c("L","M","H"));
X008 <- rep(X007,each=8);
X009 <- round(exp(iris$Sepal.Length),3);
X010 <- chickwts[,1];
set.seed(0823 );X011 <- rnorm(20,mean=10,sd=3);
set.seed(0826 );X011 <- rnorm(20,mean=11,sd=3.1);
set.seed(0813 ); X013 <-round( rnorm( 6.071428571 ,102 ,0.7 ),3);
set.seed(0824 ); X014 <-round( rnorm( 6.214285714 ,103 ,0.8 ),3);
set.seed(0835 ); X015 <-round( rnorm( 6.357142857 ,104 ,0.9 ),3);
set.seed(0846 ); X016 <-round( rnorm( 6.5 ,105 ,1 ),3);
set.seed(0857 ); X017 <-round( rnorm( 6.642857143 ,106 ,1.1 ),3);
set.seed(0868 ); X018 <-round( rnorm( 6.785714286 ,,1.2 ),3);
set.seed(0879 ); X019 <-round( rnorm( 6.928571429 ,107 ,1.3 ),3);
set.seed(0890 ); X020 <-round( rnorm( 7.071428571 ,108 ,1.4 ),3);
set.seed(0901 ); X021 <-round( rnorm( 12 ,109 ,1.5 ),3);
set.seed(0912 ); X022 <-round( rnorm( 13 ,110 ,1.6 ),3);
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set.seed(0923 ); X023 <-round( rnorm( 14 ,111 ,1.7 ),3);
X024 =anscombe$x2;X025 =anscombe$y2;
set.seed(0956 ); X026 <-round( rnorm( 11 ,114 ,2 ),3);
set.seed(0967 ); X027 <-round( rnorm( 12 ,115 ,2.1 ),3);
set.seed(0978 ); X028 <-round( rnorm( 13 ,72 ,2.2 ),3);
set.seed(0989 ); X029 <-round( rnorm( 14 ,73 ,2.3 ),3);
set.seed(1000 ); X030 <-round( rnorm( 15 ,100 ,2.4 ),3);
set.seed(1011 ); X031 <-round( rnorm( 10 ,101 ,2.5 ),3);
set.seed(1022 ); X032 <-round( rnorm( 11 ,102 ,2.6 ),3);
set.seed(1033 ); X033 <-round( rnorm( 12 ,103 ,2.7 ),3);
set.seed(1044 ); X034 <-round( rnorm( 13 ,78 ,2.8 ),3);
set.seed(1055 ); X035 <-round( rnorm( 14 ,79 ,2.9 ),3);
set.seed(1066 ); X036 <-round( rnorm( 15 ,80 ,3 ),3);
set.seed(1077 ); X037 <-round( rnorm( 10 ,81 ,3.1 ),3);
set.seed(1088 ); X038 <-round( rnorm( 11 ,82 ,3.2 ),3);
set.seed(1099 ); X039 <-round( rnorm( 12 ,83 ,3.3 ),3);
set.seed(1110 ); X040 <-round( rnorm( 13 ,100 ,3.4 ),3);
set.seed(1121 ); X041 <-round( rnorm( 14 ,101 ,3.5 ),3);
set.seed(1132 ); X042 <-round( rnorm( 15 ,102 ,3.6 ),3);
set.seed(1143 ); X043 <-round( rnorm( 10 ,103 ,3.7 ),3);
set.seed(1154 ); X044 <-round( rnorm( 11 ,88 ,3.8 ),3);
set.seed(1165 ); X045 <-round( rnorm( 12 ,89 ,3.9 ),3);
X046<-factor( c(rep("A",5) ,rep("B",5),rep("C",5) ,rep("A",5) ,rep("B",5),rep("C",5)) );
set.seed(1187 ); X047 <-round( rnorm( 14 ,91 ,4.1 ),3);
set.seed(1198 ); X048 <-round( rnorm( 15 ,92 ,4.2 ),3);
set.seed(1209 ); X049 <-round( rnorm( 10 ,93 ,4.3 ),3);
set.seed(1220 ); X050 <-round( rnorm( 11 ,94 ,4.4 ),3);
set.seed(1231 ); X051 <-round( rnorm( 12 ,95 ,4.5 ),3);
set.seed(1242 ); X052 <-round( rnorm( 13 ,96 ,4.6 ),3);
set.seed(1253 ); X053 <-round( rnorm( 12 ,97 ,4.7 ),3);
set.seed(1264 ); X054 <-round( rnorm( 13 ,98 ,4.8 ),3);
X055<-factor( c(rep("S",12) ,rep("B",12) ));
set.seed(1286 ); X056 <-round( rnorm( 15 ,100 ,5 ),3);
set.seed(1297 ); X057 <-round( rnorm( 10 ,101 ,5.1 ),3);
set.seed(1308 ); X058 <-round( rnorm( 11 ,102 ,5.2 ),3);
set.seed(1319 ); X059 <-round( rnorm( 12 ,103 ,5.3 ),3);
X060<-factor( c(rep("C",4) ,rep("W",4),rep("H",4) ,rep("C",4),rep("W",4) ,rep("H",4)) );
set.seed(1341 ); X061 <-round( rnorm( 14 ,105 ,4 ),3);
set.seed(1352 ); X062 <-round( rnorm( 15 ,106 ,4.5 ),3);
set.seed(1363 ); X063 <-round( rnorm( 12 ,95 ,4.5 ),3);
set.seed(1374 ); X064 <-round( rnorm( 16 ,107 ,3.8 ),3);
set.seed(1385 ); X065 <-round( rnorm( 17 ,108 ,3.9 ),3);
X066=Puromycin[,2];
set.seed(1407 ); X067 <-round( rnorm( 19 ,110 ,4.1 ),3);
set.seed(1418 ); X068 <-round( rnorm( 20 ,111 ,4.2 ),3);
set.seed(1429 ); X069 <-round( rnorm( 10 ,112 ,4.3 ),3);
set.seed(1440 ); X070 <-round( rnorm( 11 ,113 ,4.4 ),3);
set.seed(1451 ); X071 <-round( rnorm( 12 ,114 ,4.5 ),3);
set.seed(1462 ); X072 <-round( rnorm( 13 ,115 ,4.6 ),3);
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set.seed(1473 ); X073 <-round( rnorm( 14 ,116 ,4.7 ),3);
set.seed(1484 ); X074 <-round( rnorm( 15 ,117 ,4.8 ),3);
X075<-c(4,5,6,5,7,9,8,12,10,12,11,9,6,6,4,4,13,15,12,
12,13,13,10,13);
set.seed(1506 ); X076 <-round( rnorm( 17 ,119 ,5 ),3);
X077 <- c(254L, 252L, 155L, 258L, 214L, 103L, 116L, 136L, 184L, 179L,
178L, 172L, 116L, 208L, 168L, 123L, 183L, 231L, 149L, 240L);
X078 <- c(208L, 221L, 169L, 243L, 196L, 100L, 124L, 120L, 167L, 166L,
205L, 137L, 165L, 237L, 126L, 105L, 201L, 148L, 202L, 237L);
X079 <- c(171L, 169L, 197L, 100L, 167L, 198L, 203L, 125L, 154L, 191L,
134L, 227L, 129L, 113L, 206L, 206L, 104L, 188L, 144L, 219L);
X080=c(236, 288, 247, 234, 245, 230, 217, 246, 272, 245, 215, 318, 241,
189, 253, 221, 283, 244, 313, 236);
set.seed(1396 ); X081 <-round( rnorm( 18 ,109 ,4 ),3);
X082=c(7823, 7709, 8113, 7952, 7771, 7924, 7990, 7728, 7745, 7944, 7978,
7868, 7728, 8018, 7795, 7606, 7840, 7344, 7958, 7820);
X083 =c(rep(1,10),rep(2,8),rep(3,12),rep(4,10),rep(5,9),rep(6,11));
X084=c(4.9 ,40.9 ,15.9 ,6.4 ,18 ,38.9 ,14 ,15.2 ,32 ,56.7 ,16.8 ,11.6 ,
26.5 ,0.7 ,13.4 ,5.5 );
X085 =sqrt(DNase[,2]);
X086 =iris[,2];
X087=Puromycin[,1];
X088=airquality$Wind;
X089=c( 0.86 ,1.53 ,1.57 ,1.81 ,0.99 ,1.09 ,1.29 ,1.78 ,1.29 ,1.58 ,
1.68 ,1.9 ,1.06 ,1.3 ,1.52 ,1.74 );X090 =anscombe$x3;
X091 =seq(4:24);
X092=c(942,939,882,896,980,914,942,941,940,867,845,915,910,860,902,
966,851,963,834,962,945)
X093=c(975,933,886,918,1154,1126,1154,1202,1119, 1078,1290,1141,
1039,1148,1044,1103,1151,1225,1118)
X094=c(16.36,16.40,16.52,16.59,16.60,16.85,16.96,17.02,17.17,17.21);
X095=log(X094,2);
X096 =log(DNase[,2]);
X097 =c(X092,X093);
X098 = c(226, 224, 246, 240, 259, 268, 264, 235, 239, 213, 219, 235, 214,
243, 254, 201, 183, 205, 195, 258);
X099=c(119, 131, 115, 107, 125, 96, 128 ,99 ,103, 103, 105, 109);
X100<-c(6.7, 6.1, 6.8, 8, 7.5, 7.5, 10.3, 11.6, 10.9, 6.9, 9.2, 8.8,
10.3, 9.8, 12.9, 11.9, 11.2);
X101<-c(79L, 131L, 89L, 152L, 135L, 138L, 115L, 141L, 66L, 92L, 118L,
151L, 136L, 100L, 151L, 152L, 131L, 104L, 77L, 118L, 156L, 120L,
88L, 122L, 159L, 94L, 73L, 138L, 142L, 78L, 134L, 146L, 63L,
105L, 155L, 157L, 159L, 67L, 159L, 137L);
X102<- c(149L, 155L, 139L, 152L, 68L, 138L, 67L, 110L, 134L, 126L, 85L,
115L, 142L, 108L, 148L, 106L, 103L, 105L, 110L, 132L, 94L, 129L,
141L, 89L, 73L, 133L, 80L, 80L, 132L, 76L, 64L, 83L, 160L, 107L,
91L, 119L, 131L, 127L, 85L, 106L);
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X103<-c(149L, 155L, 139L, 152L, 68L, 138L, 67L, 110L, 134L, 126L, 85L,
115L, 142L, 108L, 148L, 106L, 103L, 105L, 110L, 132L, 94L, 129L,
141L, 89L, 73L, 133L, 80L, 80L, 132L, 76L, 64L, 83L, 160L, 107L,
91L, 119L, 131L, 127L, 85L, 106L);
X104<-c(87L, 153L, 150L, 135L, 157L, 62L, 109L, 68L, 67L, 61L, 125L,
130L, 105L, 97L, 86L, 121L, 124L, 131L, 100L, 154L, 159L, 65L,
83L, 156L, 103L, 104L, 100L, 99L, 131L, 155L, 121L, 62L, 127L,
81L, 154L, 107L, 108L, 108L, 66L, 122L);
X105<-c(141L, 147L, 97L, 71L, 160L, 128L, 75L, 65L, 153L, 126L, 120L,
83L, 103L, 70L, 74L, 81L, 96L, 99L, 80L, 70L, 148L, 102L, 130L,
112L, 159L, 149L, 111L, 154L, 82L, 70L, 65L, 119L, 72L, 88L,
121L, 104L, 70L, 137L, 62L, 110L);
X106<-c(117L, 143L, 113L, 104L, 97L, 99L, 76L, 121L, 109L, 127L, 132L,
108L, 148L, 97L, 122L, 144L, 87L, 87L, 119L, 111L, 90L, 77L,
77L, 99L, 100L, 98L, 80L, 107L, 105L, 133L, 104L, 105L, 117L,
117L, 123L, 141L, 109L, 96L, 74L, 119L);
X107<-c(130L, 79L, 70L, 118L, 81L, 126L, 141L, 77L, 147L, 81L, 71L, 117L)
X108<-c(68L, 81L, 91L, 86L, 76L, 84L, 99L, 82L, 81L, 91L, 96L, 82L);
X109<-structure(c(1L, 1L, 1L, 1L, 1L, 2L, 2L, 2L, 2L, 2L, 2L, 2L, 3L,
3L, 3L, 3L, 3L), .Label = c("A", "B", "C"), class = "factor");
X110<-c(60L, 158L, 62L, 156L, 107L, 98L, 61L, 110L, 145L, 127L, 79L,
126L);
X111<-X100[1:5];X112<-X100[6:12];X113<-X100[13:17];
X114<-c(100L, 102L, 143L, 114L, 108L, 145L, 113L, 139L, 102L, 116L,
107L, 94L);
X115<-c(134L, 159L, 106L, 136L, 72L, 157L, 106L, 138L, 80L, 104L, 160L,
118L);
X116 =Loblolly$height;
X117 = c( 3.135 ,5.043 ,5.438 ,7.496 ,3.807 ,7.601 ,8.726 ,7.966 ,3.85 ,
4.174 , 6.142 ,7.908 ,2.996 ,4.942 );
X118 = c(6.752 ,9.588 ,3.912 ,4.7 ,6.174 ,9.064 ,4.949 , 5.22 ,9.242 ,
10.199 ,3.664 ,3.219 ,6.962 ,3.912 ,6.685 ,4.787 );
X119 =anscombe$y3;
################################################
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#

#
DAT01 =iris[,4];
DAT02 =rock[,2];
DAT03 =DNase[,3];
DAT04 =rock[,4];
DAT05=trees$Volume;
DAT06 =c(45,78,89,100,112,115,140,190,201,223);
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DAT07 =c(2.9,2.4,2.5,1.9,1.3,1.3,0.7,1.2,0.1);
DAT08=c(672, 781, 549, 619, 672, 678, 618, 734, 709, 633, 605, 661,
747, 655, 780, 816, 788, 957, 742, 736, 716);
DAT09=c(679, 700, 703, 696, 832, 950, 874, 940, 903, 892, 915, 870,
820, 823, 798, 829, 819, 840, 866);
DAT10=c(DAT08,DAT09);
DAT11 =c(16.62,16.76,16.87,16.98,17.01,17.08,17.12, 17.26,17.34,17.38);
DAT12 =diff(lynx);DAT13=faithful[,2];
DAT14=Theoph$Wt;
DAT15 =c(925,1000,1150,1200,1100,1680,1480,1370,860);
DAT16 =iris[,3];DAT16 =rock[,1];
DAT18 =c(1,3,1,3,13,7,1,7,6);
DAT19 =DNase[,2];
DAT20 =anscombe$y4;
DAT21 = c(13.1,15.3,25.8,1.8,4.9,55.4,39.3,26.7,47.5,6.6,
94.7,61.1,135.6,47.6);
DAT22=trees$Girth;DAT23=Theoph$Dose;
DAT24 =c(74,61,69,83,69,74,76,82,55);
DAT25 =anscombe$y3;
DAT26 =Loblolly$height;
DAT27 = c( 3.135 ,5.043 ,5.438 ,7.496 ,3.807 ,7.601 ,8.726 ,7.966 ,3.85 ,
4.174 , 6.142 ,7.908 ,2.996 ,4.942 );
DAT28 = c(6.752 ,9.588 ,3.912 ,4.7 ,6.174 ,9.064 ,4.949 , 5.22 ,9.242 ,
10.199 ,3.664 ,3.219 ,6.962 ,3.912 ,6.685 ,4.787 );
DAT29 =anscombe$x4;
DAT30 =c(41,27,32,35,35,44,31,38,36,39,38,43,38,30,33,37,37,34,
36,35,11,18,12,9,13,16,10,15,15,14,7);
DAT31 =c(65,69,75,84,72,58,68,81,90,78,82,81,79,77);
DAT32 =anscombe$x1;
DAT33=c( 12.3 ,20.9 ,39 ,47.9 ,5.6 ,25.9 ,37.3 ,21.9 ,18.1 ,
21 ,34.9 ,57.2 ,0.7 ,25.9 );
DAT34 =warpbreaks[,1];
DAT35 =precip;
DAT36 =c(68,64,62,65,66,61,70) ;
DAT37 =c(22,16,17,22,21,19,15,11,22,15,22,13,19,25,14,18,24);
DAT38=attenu$accel;
DAT39 =Indometh$conc;
DAT40 =anscombe$x2;
DAT41 =seq(4:24);
DAT42=c(942,939,882,896,980,914,942,941,940,867,845,915,910,
860,902,966,851,963,834,962,945);
DAT43=c(975,933,886,918,1154,1126,1154,1202,1119, 1078,1290,
1141,1039,1148,1044,1103,1151,1225,1118)
DAT44=c(16.36,16.40,16.52,16.59,16.60,16.85,16.96,17.02,17.17,17.21);
DAT45=c(DAT27,DAT28);DAT46 =log(DNase[,2]);
DAT47 =c(DAT42,DAT43);
DAT48 = c(226, 224, 246, 240, 259, 268, 264, 235, 239, 213,
219, 235, 214, 243, 254, 201, 183, 205, 195, 258);
DAT49=c(119, 131, 115, 107, 125, 96, 128 ,99 ,103, 103, 105, 109);
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DAT50=c(236, 288, 247, 234, 245, 230, 217, 246, 272, 245,
 215, 318, 241, 189, 253, 221, 283, 244, 313, 236);
DAT51=Puromycin[,2];
DAT52=c(7823, 7709, 8113, 7952, 7771, 7924, 7990, 7728, 7745,
7944, 7978, 7868, 7728, 8018, 7795, 7606, 7840, 7344, 7958, 7820);
DAT53 =c(rep(1,10),rep(2,8),rep(3,12),rep(4,10),rep(5,9),rep(6,11));
DAT54=c(4.9 ,40.9 ,15.9 ,6.4 ,18 ,38.9 ,14 ,15.2 ,
32 ,56.7 ,16.8 ,11.6 ,26.5 ,0.7 ,13.4 ,5.5 );
DAT55 =sqrt(DNase[,2]);DAT56 =iris[,2];
DAT57=Puromycin[,1];DAT58=airquality$Wind;
DAT59=c( 0.86 ,1.53 ,1.57 ,1.81 ,0.99 ,1.09 ,1.29 ,1.78 ,1.29 ,
1.58 ,1.68 ,1.9 ,1.06 ,1.3 ,1.52 ,1.74 );
DAT60=c(DAT48,DAT50);DAT61=c(DAT33,DAT54);
DAT62=c(7692, 7806, 7703, 7876, 7779, 7299, 7174, 7234, 7127,
7253, 7285, 7083, 7257, 7337, 7309, 7441, 7395, 7323, 7299, 7209);
DAT63=c(6.365 ,4.787 ,5.412 ,5.247 ,5.438 ,4.564 ,5.298 ,5.455 ,
5.855 ,5.366 ,6.043 ,6.458 ,5.328 ,5.802 ,6.176 );
DAT64=c(1075, 1088, 911, 966, 1051, 911, 922, 1100, 1082, 1037,
1051, 1036, 1074, 875, 952, 1155, 943, 1278, 961, 952, 1074) ;
DAT65=c( 4.543 ,5.159 ,5.366 ,5.759 ,4.663 ,5.697 ,5.892 ,6.078 ,
4.898 ,5.242 ,5.74 ,6.446 ,4.477,5.236 ,6.151);
DAT66=airquality$Temp;
DAT67=c(995, 1056, 1065, 1065, 1315, 1321, 1359, 1378, 1295, 1275,
1336, 1309, 1340, 1299, 1221, 1245, 1285, 1248, 1356);
DAT68=c( 1.16 ,1.49,1.63 ,1.99 ,1.15 ,1.33 ,1.44 ,2.01 ,1.31 ,1.46 ,
1.72 ,1.25 ,1.08 ,1.25 );
DAT69=c(DAT64,DAT67);DAT70=c(DAT65,DAT63);
DAT71=c(DAT59,DAT68);DAT72=c(DAT52,DAT62);
DAT73=c(75, 73, 54, 57, 67, 49, 66, 61, 60, 55, 35, 59, 70, 52, 49, 98,
94, 69, 70, 77, 67, 46, 53, 39, 45);
DAT74=c(139, 136, 115, 111, 109, 121, 120, 122, 114, 116, 107, 72, 129, 107, 106);
DAT75=c(DAT73,DAT74);
#
#
DAT76=c(36, 31, 31, 50, 50, 51, 49, 39, 46, 26, 21, 30,50, 41, 50, 32, 42,
45, 46, 43, 56, 56) ;
DAT77=c(54, 42, 47, 42, 43, 45, 46, 43, 40, 50, 46, 48, 40, 54, 44, 57, 46, 48);
DAT78=c(DAT76,DAT77);
DAT79=c(120,140,112,109,114,116,99,108,109,111,109,131,117,101);
DAT80=log(DAT73)/2;
DAT81 = c(104, 112, 110, 107, 101, 103, 101, 102, 103, 102, 101, 120, 112, 103);
DAT82=DAT81-DAT79; DAT83 = DAT79-DAT81;
DAT84=c(14,13,16,20,12,18,11,09,13,11);
DAT85=c(15,13,18,20,10,17,23,11,10);
DAT86 =sort(warpbreaks[1:27,1]);
DAT87 =sort(warpbreaks[28:54,1]);
DAT88=c(113, 115, 120, 109, 105, 103, 103, 99, 128,
96, 125, 107, 115, 131, 119);
DAT89=c(45,78,89,100,112,115,140,190,201,223);
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DAT90 =c(2.9,2.4,2.5,1.9,1.3,1.3,0.7,1.2,0.1);
DAT91=c(672, 781, 549, 619, 672, 678, 618, 734, 709, 633, 605,
 661, 747, 655, 780, 816, 788, 957, 742, 736, 716);
DAT92=c(679, 700, 703, 696, 832, 950, 874, 940, 903,
892, 915, 870, 820, 823, 798, 829, 819, 840, 866);
DAT93=c(130.5, 187.2, 222.5, 190, 185.6, 293.5, 366,
475, 381.9, 279.9);
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