Q(2) p(7)

درجة الثقة 95%

**One-Sample T: quistion2 اسم الاختبار المستخدم**

Variable N Mean StDev SE Mean 95% CI

quistion2 14 47.1429 3.2548 0.8699 (45.2636, 49.0221)

فترة التقة 95%

s

حجم العينة

Q(3) p(7)

**One-Sample Z نوع الاختبار**

الانحراف المغياري للمجتمع

The assumed standard deviation = 55

N Mean SE Mean 90% CI

185 141.000 4.044 (134.349, 147.651)

فترة التقة 90%

حجم العينة

الفقرة الثانية ( اختبار المتوسط يختلف عن 130 )

**One-Sample Z اسم الاختبار**

Test of mu = 130 vs not = 130 اختبار المتوسط لايساوي 130

The assumed standard deviation = 55 (الانحراف للمجتمع)

N Mean SE Mean 90% CI Z P

185 141.000 4.044 (134.349, 147.651) 2.72 0.007

P value

Z value

Q(6) p(8)

(a)

**Two-sample T for whole vs skim عنوان الاختبار واسم المتغيرين**

معلومات عن العينتين

N Mean StDev SE Mean

whole 10 94.645 0.503 0.16

skim 10 91.340 0.483 0.15

Difference = mu (whole) - mu (skim)

Estimate for difference: 3.30500

99% lower bound for difference: 2.74217

T-Test of difference = 0 (vs >): T-Value = 14.99 P-Value = 0.000 DF = 18

Both use Pooled StDev = 0.4931

قيمة

p

قيمة

T

القيمة الصغرى لفترة الثقة عند تقة 99%

ظهرت القيمة الصغرى فقط لان الحالة الاكبر من

حالة الاكبر من

قيمة

Sp

(b)

Two-sample T for whole vs skim

N Mean StDev SE Mean

whole 10 94.645 0.503 0.16

skim 10 91.340 0.483 0.15

Difference = mu (whole) - mu (skim)

Estimate for difference: 3.30500

99% CI for difference: (2.67027, 3.93973)

T-Test of difference = 0 (vs not =): T-Value = 14.99 P-Value = 0.000 DF = 18

Both use Pooled StDev = 0.4931

فترة التقةعند 99% وهنا ظهرت لنا القيمتين الصغرى والكبرى لانننا اخترنا الحالة

Not equal

Q(8)

**Paired T for method a - method b عنوان الاختبار**

N Mean StDev SE Mean

معلومات عن العينيتين

method a 8 34.3750 4.8679 1.7211

method b 8 29.5000 3.8173 1.3496

Difference 8 4.87500 2.53194 0.89518

95% lower bound for mean difference: 3.17902

T-Test of mean difference = 0 (vs > 0): T-Value = 5.45 P-Value = 0.000

قيمة

p

قيمة

T

اختبار الاكبر من

القيمة الصغرى للفترة لان الاختبار أكبر من

Q(8) find 90% C.I for difference in mean

Paired T for method a - method b

N Mean StDev SE Mean

method a 8 34.3750 4.8679 1.7211

method b 8 29.5000 3.8173 1.3496

Difference 8 4.87500 2.53194 0.89518

90% CI for mean difference: (3.17902, 6.57098)

T-Test of mean difference = 0 (vs not = 0): T-Value = 5.45 P-Value = 0.001

الاختبار

Not equal

حتى تظهر لنا القيمة الصغرى والكبرى

\

فترة التقة 90%

**(Q3.2) Test and CI for One Proportion**

Test of p = 0.5 vs p not = 0.5

Sample X N Sample p 99% CI Z-Value P-Value

1 74 86 0.860465 (0.764221, 0.956710) 6.69 0.000

**Test and CI for One Proportion**

Test of p = 0.75 vs p > 0.75

95%

Lower

Sample X N Sample p Bound Z-Value P-Value

1 74 86 0.860465 0.799006 2.37 0.009

**(q3.7) Test and CI for Two Proportions**

Sample X N Sample p

1 94 200 0.470000

2 180 200 0.900000

Difference = p (1) - p (2)

Estimate for difference: -0.43

95% CI for difference: (-0.510704, -0.349296)

Test for difference = 0 (vs not = 0): Z = -9.26 P-Value = 0.000

**Test and CI for Two Proportions**

Sample X N Sample p

1 94 200 0.470000

2 180 200 0.900000

Difference = p (1) - p (2)

Estimate for difference: -0.43

99% CI for difference: (-0.536064, -0.323936)

Test for difference = 0 (vs not = 0): Z = -9.26 P-Value = 0.000

Ch(5)

عنوان الاختبار

Q(3.15)

**Chi-Square Test: C1, C2**

Expected counts are printed below observed counts

Chi-Square contributions are printed below expected counts

القيمة المشاهدة

observed frequencies

C1 C2 Total

1 400 50 450

408.07 41.93

0.160 1.553

2 292 35 327

296.53 30.47

القيمة المتوقعة

expected frequency

0.069 0.674

3 345 35 380

` 344.59 35.41

0.000 0.005

4 452 33 485

439.81 45.19

0.338 3.289

Total 1489 153 1642

Chi-Sq = 6.088, DF = 3, P-Value = 0.107

قيمة الاحصاءة الحسابية كاي

(احصاءة الاختبار)

test statistic

قيمة

p

درجة الحرية

Q(3.16)

**Chi-Square Test: 3.16 1, 3.16 2, 3.16 3**

Expected counts are printed below observed counts

Chi-Square contributions are printed below expected counts

3.16 1 3.16 2 3.16 3 Total

1 6 31 97 134

5.98 27.96 100.06

0.000 0.330 0.093

2 16 73 349 438

19.55 91.40 327.05

0.644 3.705 1.473

3 45 174 652 871

38.87 181.76 650.37

0.966 0.331 0.004

4 64 323 1061 1448

64.62 302.17 1081.21

0.006 1.436 0.378

5 51 250 886 1187

52.98 247.70 886.32

0.074 0.021 0.000

Total 182 851 3045 4078

Chi-Sq = 9.461, DF = 8, P-Value = 0.305

Q 3.19

**Chi-Square Test: 3.19 n, 3.19 s**

Expected counts are printed below observed counts

Chi-Square contributions are printed below expected counts

3.19 n 3.19 s Total

1 15 6 21

14.12 6.88

0.055 0.113

2 18 12 30

20.17 9.83

0.234 0.480

3 62 41 103

69.25 33.75

0.760 1.559

4 21 11 32

21.52 10.48

0.012 0.025

5 159 64 223

149.94 73.06

0.548 1.124

Total 275 134 409

Chi-Sq = 4.909, DF = 4, P-Value = 0.297

**Q 3.20**

**Chi-Square Test: 1, 2, 3, 4**

Expected counts are printed below observed counts

Chi-Square contributions are printed below expected counts

1 2 3 4 Total

1 136 78 104 55 373

136.32 75.74 104.14 56.80

0.001 0.068 0.000 0.057

2 80 42 61 35 218

79.68 44.26 60.86 33.20

0.001 0.116 0.000 0.098

Total 216 120 165 90 591

Chi-Sq = 0.341, DF = 3, P-Value = 0.952

**Chapter(6)**

**Q1**

**One-way ANOVA: cucumber, snake, squash, watermelon**

Source DF SS MS F P

Factor 3 86648 28883 260.61 0.000

Error 16 1773 111

Total 19 88421

S = 10.53 R-Sq = 97.99% R-Sq(adj) = 97.62%

**Q2**

**One-way ANOVA: 1, 2, 3**

Source DF SS MS F P

Factor 2 0.002628 0.001314 3.47 0.058

Error 15 0.005674 0.000378

Total 17 0.008302

S = 0.01945 R-Sq = 31.66% R-Sq(adj) = 22.54%

Q4

**Two-way ANOVA: y versus variety, irrigation لايوجد تفاعل**

Source DF SS MS F P

variety 1 7.664 7.6636 7.91 0.067

irrigation 3 150.374 50.1247 51.77 0.004

Error 3 2.905 0.9683

Total 7 160.943

S = 0.9840 R-Sq = 98.20% R-Sq(adj) = 95.79%

**Q4.11**

**Two-way ANOVA: x versus spacing, fertilizer**

Source DF SS MS F P

spacing 1 25.4917 25.4917 505.79 0.000

fertilizer 1 0.0631 0.0631 1.25 0.296

Interaction 1 0.0817 0.0817 1.62 0.239

Error 8 0.4032 0.0504

Total 11 26.0396

S = 0.2245 R-Sq = 98.45% R-Sq(adj) = 97.87%

Ch(7)

**Q 6.1**

For this data

1128 1190 1230 1260 1300 1100 1130 1200 1250 1310

Use the sign test to decide if the median amount of dust in the air is more than 1200 . use

**Sign Test for Median: C1**

Sign test of median = 1200 versus > 1200

N Below Equal Above P Median

C1 10 4 1 5 0.5000 1215

الوسيط للبيانات

قيمةp

القيم الاعلى من 1200

القيم الاقل من 1200

القيم المساوية ل1200

حجم العينة

Q 6.6

Two varieties of tomato were grown under plastic house conditions. The fruit weight for independent . samples of fruit of two varieties gave

Variety1: 125 143 150 156 135 132 145 147

Variety2: 142 160 138 144 154 158 157 161

If we assume normaliy test whether there is a difference in the median fruit weights of the varieties use .

**Mann-Whitney Test and CI: variety1, variety2**

وسيط العينة الاولى

N Median

variety1 8 144.00

وسيط العينة الثانية

variety2 8 155.50

Point estimate for ETA1-ETA2 is -10.50

قيمة w1

95.9 Percent CI for ETA1-ETA2 is (-22.00,2.00)

W = 51.0

Test of ETA1 = ETA2 vs ETA1 not = ETA2 is significant at 0.0831

P value









