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Computational Statistics – Class Q

Final Exam – 6/6/2022

**Number 2**

UNKNOWN WORKSHEET

**Note**

H0 : p1 = p2

UNKNOWN WORKSHEET

**Note**

H1 : p1 < p2

UNKNOWN WORKSHEET

**Note**

p1 : residents of the city

UNKNOWN WORKSHEET

**Note**

p2 : residents around the city

UNKNOWN WORKSHEET

**Data Display**

z       2.86972

ztab    1.64485

UNKNOWN WORKSHEET

**Data Display**

pvalue    0.00205418

alpha     0.950000

UNKNOWN WORKSHEET

**Note**

Reject H0, proportion of city residents approve is higher than proportion of residents around  
the city

**Number 3**

Matrix X

UNKNOWN WORKSHEET

**Data Display**

**Matrix mx1**

|  |  |  |
| --- | --- | --- |
| 251 | 1.02 | 0.03 |
| 234 | 1.00 | 0.04 |
| 241 | 1.00 | 0.02 |
| 241 | 1.00 | 0.02 |
| 246 | 0.99 | 0.04 |
| 228 | 1.01 | 0.04 |
| 246 | 1.01 | 0.03 |
| 221 | 1.00 | 0.04 |
| 227 | 1.02 | 0.04 |
| 233 | 0.99 | 0.03 |
| 256 | 1.02 | 0.04 |
| 257 | 1.02 | 0.02 |
| 248 | 0.99 | 0.02 |
| 261 | 1.00 | 0.02 |
| 238 | 1.02 | 0.03 |
| 250 | 1.00 | 0.02 |
| 257 | 0.98 | 0.04 |
| 257 | 0.98 | 0.04 |
| 240 | 1.00 | 0.02 |
| 233 | 1.00 | 0.04 |

UNKNOWN WORKSHEET

**Data Display**

xbar    243.250

ybar    1.00250

zbar    0.0310000

Matrix Y

UNKNOWN WORKSHEET

**Data Display**

**Matrix mx2**

|  |  |  |
| --- | --- | --- |
| 7.75 | 0.0175 | -0.001 |
| -9.25 | -0.0025 | 0.009 |
| -2.25 | -0.0025 | -0.011 |
| -2.25 | -0.0025 | -0.011 |
| 2.75 | -0.0125 | 0.009 |
| -15.25 | 0.0075 | 0.009 |
| 2.75 | 0.0075 | -0.001 |
| -22.25 | -0.0025 | 0.009 |
| -16.25 | 0.0175 | 0.009 |
| -10.25 | -0.0125 | -0.001 |
| 12.75 | 0.0175 | 0.009 |
| 13.75 | 0.0175 | -0.011 |
| 4.75 | -0.0125 | -0.011 |
| 17.75 | -0.0025 | -0.011 |
| -5.25 | 0.0175 | -0.001 |
| 6.75 | -0.0025 | -0.011 |
| 13.75 | -0.0225 | 0.009 |
| 13.75 | -0.0225 | 0.009 |
| -3.25 | -0.0025 | -0.011 |
| -10.25 | -0.0025 | 0.009 |

UNKNOWN WORKSHEET

**Data Display**

**Data**

|  |  |
| --- | --- |
| **Row** | **x11** |
| 1 | -0.0001356 |
| 2 | 0.0002081 |
| 3 | -0.0000619 |
| 4 | -0.0000619 |
| 5 | -0.0003094 |
| 6 | -0.0010294 |
| 7 | -0.0000206 |
| 8 | 0.0005006 |
| 9 | -0.0025594 |
| 10 | -0.0001281 |
| 11 | 0.0020081 |
| 12 | -0.0026469 |
| 13 | 0.0006531 |
| 14 | 0.0004881 |
| 15 | 0.0000919 |
| 16 | 0.0001856 |
| 17 | -0.0027844 |
| 18 | -0.0027844 |
| 19 | -0.0000894 |
| 20 | 0.0002306 |

UNKNOWN WORKSHEET

**Data Display**

cov    -0.000433947