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1.

A) Categorical Data

B)

|  |  |  |
| --- | --- | --- |
| Newspaper | Frequency | Percentage |
| TNYT | 14 | 28% |
| WP | 12 | 24% |
| DN | 9 | 18% |
| NYP | 7 | 14% |
| LAT | 8 | 16% |
| TOTAL | 50 | 100% |

C) TNYT is the most preferred newspaper.

2.

A-D)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Time Spent** | **Frequency** | **Relative Frequency** | **Cumulative Frequency** | **Cumulative Relative Frequency** |
| 10 | 1 | 4.17% | 1 | 4.17% |
| 12 | 1 | 4.17% | 2 | 8.33% |
| 13 | 2 | 8.33% | 4 | 16.67% |
| 14 | 1 | 4.17% | 5 | 20.83% |
| 15 | 2 | 8.33% | 7 | 29.17% |
| 16 | 2 | 8.33% | 9 | 37.50% |
| 17 | 2 | 8.33% | 11 | 45.83% |
| 18 | 1 | 4.17% | 12 | 50.00% |
| 19 | 2 | 8.33% | 14 | 58.33% |
| 20 | 2 | 8.33% | 16 | 66.67% |
| 21 | 1 | 4.17% | 17 | 70.83% |
| 23 | 1 | 4.17% | 18 | 75.00% |
| 24 | 3 | 12.50% | 21 | 87.50% |
| 26 | 2 | 8.33% | 23 | 95.83% |
| 27 | 1 | 4.17% | 24 | 100.00% |

E) 16.67%

F)

3.

A) = 25.68

B) 26.4

C) 26.8

D) = 6.6717

= 2.5830

E) 28.1

4.

A)

= 0.2099

B)

= -0.0637

The z-score in public transportation is less than the z-score in private transportation

C)

|  |  |  |  |
| --- | --- | --- | --- |
| **Travel Times using Private Transport** | ***z*-score** | **Travel Times using Public Transport** | ***z*-score** |
| 27 | -0.17 | 30 | 0.10 |
| 33 | 0.97 | 29 | -0.06 |
| 28 | 0.02 | 25 | -0.70 |
| 32 | 0.78 | 20 | -1.50 |
| 20 | -1.51 | 27 | -0.38 |
| 34 | 1.16 | 32 | 0.41 |
| 30 | 0.40 | 37 | 1.21 |
| 28 | 0.02 | 38 | 1.37 |
| 18 | -1.89 | 21 | -1.34 |
| 29 | 0.21 | 35 | 0.89 |

No *z*-score is less than –3.0 or above +3.0; therefore, the *z*-scores do not indicate the existence of any outliers in either sample.

5.

A)

B) They have a negative linear relationship between the x and y variables.

C)

= -55.8571

D)

= -0.9945