|  |  |  |  |
| --- | --- | --- | --- |
| **Assumptions (Factors)** | **Method used to test assumption** | **Result of method** | **Decision (Met or did not meet assumption)** |
| *1 Dep Var* | *Inherent in data set* |  | *Met* |
| *1 Ind var w/ >2 levels* | *Inherent in data set* |  | *Met* |
| *Independence of Observations* | *Inherent in data set* |  | *Met* |
| *Normal Distribution* | *S-W, any graph (P-P,Q-Q)-Choose a few* | *Groups 3, 5 6 - not normally distributed*  *(S-W test and histograms and Q-Q plots)-Choose a few* | *Not met* |
| *No Outliers* | *Box Plot* | *3 extreme outliers* | *Not Met* |
| *Homogeneity of Var* | *Levene’s Test* | *Test outcome p = .168* | *Met* |

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| **Levels (Weight\_group example)** | **Shapiro-Wilkes test Significance (p value)** | **P-P Interpretation**  **(Normal or Not Normal)** | **Histogram Interpretation**  **(Normal or Not Normal)** |
| *</= 100* | *.365* | *~normal* | *~ Normal or not normal* |
| *101-125* | *.260* | *~normal* | *~ Normal or not normal* |
| *126-150* | *.000013* | *Not normal - skew* | *~ Normal or not normal* |
| *151-175* | *.489* | *~normal* | *~ Normal or not normal* |
| *176-200* | *.037* | *Not normal - skew* | *~ Normal or not normal* |
| *>200* | *.000047* | *Not normal - skew* | *~ Normal or not normal* |

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| **Levels (Example Weight\_group)** | **Mean** | **Median** | **Skewness** | **Kurtosis** | **Normally Distributed?** |
| *<100 (Lv1)* | *159.68* | *159* | *-.248* | *-.599* | *YES* |
| *101-125(Lv2)* | *167.27* | *174* | *-.288* | *-.092* | *YES (OR Close)* |
| *126-150(Lv3)* | *171.48* | *169.5* | *.593* | *5.305* | *YES* |
| *151-175(Lv4)* | *182.51* | *185.50* | *-.095* | *0.033* | *YES* |
| *176-200(Lv5)* | *191.88* | *185* | *.849* | *1.513* | *NO* |
| *>201(Lv6)* | *229.26* | *222.0* | *1.611* | *5.58* | *NO* |

|  |  |
| --- | --- |
| **Weight Group** | **Decision – Normally Distributed or Not Normally Distributed** |
| *<100 (Lv1)* | *Normally Distributed* |
| *101-125(Lv2)* | *Normally Distributed* |
| *126-150(Lv3)* | *Not Normally Distributed* |
| *151-175(Lv4)* | *Normally Distributed* |
| *176-200(Lv5)* | *Normally Distributed* |
| *>201(Lv6)* | *Not Normally Distributed* |