SUPPLEMENTARY INFORMATION OF 'BEHIND CLOSED DOORS: EXAMINING INDIVIDUALS' WARDROBES.'

CONTENTS

S1. WARDROBE DISAGGREGATED BY GENDER AND GARMENT CATEGORY

1. Averages, Not Weighted

			Active		Dormant		
			First-owner	Pre-owned	First-owner	Pre-owned	Total
men	1_tops	1.1_shirts, short sleeve	31	1	13	0	45
		1.2_shirts, long sleeve	3	0	1	0	4
		1.3_blouses_dress shirts	15	0	6	0	21
		1.4_blazer_suit vest	3	0	2	0	5
		1.5_sweater	21	0	8	0	29
	2_bottoms	2.1_pants, short	11	0	3	0	15
		2.2_pants, long	18	0	5	0	24
		2.3_skirts	0	0	0	0	0
	3_one-piece	3.1_dress	0	0	0	0	0
		3.2_one-piece, not dress	0	0	0	0	0
	4_outers	4.1_coats	7	0	2	0	10
	5_nightwear	5.1_nightwear	6	0	1	0	7
women	1_tops	1.1_shirts, short sleeve	30	1	9	0	40
		1.2_shirts, long sleeve	8	0	2	0	10
		1.3_blouses_dress shirts	16	0	4	0	21
		1.4_blazer_suit vest	3	0	2	0	5
		1.5_sweater	33	1	9	0	44
	2_bottoms	2.1_pants, short	8	0	2	0	11
		2.2_pants, long	24	0	7	1	31
		2.3_skirts	5	0	2	0	7
	3_one-piece	3.1_dress	19	0	6	0	26
		3.2_one-piece, not dress	2	0	1	0	3
	4_outers	4.1_coats	9	0	4	0	13
	5_nightwear	5.1_nightwear	12	0	1	0	14

2.   Averages, Weighted

			Active		Dormant		
			First-owner	Pre-owned	First-owner	Pre-owned	Total
men	1_tops	1.1_shirts, short sleeve	29	0	11	0	41
		1.2_shirts, long sleeve	3	0	1	0	4
		1.3_blouses_dress shirts	19	0	7	0	26
		1.4_blazer_suit vest	4	0	2	0	7
		1.5_sweater	22	0	8	0	30
	2_bottoms	2.1_pants, short	11	0	3	0	14
		2.2_pants, long	21	0	6	0	27
		2.3_skirts	0	0	0	0	0
	3_one-piece	3.1_dress	0	0	0	0	0
		3.2_one-piece, not dress	0	0	0	0	0
	4_outers	4.1_coats	8	0	3	0	11
	5_nightwear	5.1_nightwear	8	0	1	0	8
women	1_tops	1.1_shirts, short sleeve	29	0	8	0	38
		1.2_shirts, long sleeve	8	0	1	0	9
		1.3_blouses_dress shirts	18	0	4	0	23
		1.4_blazer_suit vest	3	0	2	0	5
		1.5_sweater	36	0	9	0	45
	2_bottoms	2.1_pants, short	7	0	2	0	9
		2.2_pants, long	25	0	6	0	31
		2.3_skirts	5	0	2	0	7
	3_one-piece	3.1_dress	20	0	6	0	26
		3.2_one-piece, not dress	1	0	1	0	2
	4_outers	4.1_coats	11	0	4	0	15
	5_nightwear	5.1_nightwear	14	0	1	0	16

S2.   STATISTICAL TESTS BETWEEN VARIABLES

1.   Total Wardrobe Size vs Total Amount of Dormant Garments

```
wardrobe size vs amount of dormant garments (absolute count)

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.956563531903046, pvalue=8.596798615585989e-05)
>> wardrobe size: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.8256126545688344, pvalue=2.3450037230383007e-12)
>> dormant: p < 0.05, reject H0, significant deviation from normality


no normality: spearman correlation
SignificanceResult(statistic=0.6169482578588463, pvalue=9.845349500028441e-18)
>> p < 0.05, reject H0, there is a moderate positive correlation
```

2.   Total Wardrobe Size vs Total Amount of Pre-Owned Items

```
wardrobe size vs amount of pre-owned garments (absolute count)

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.956563531903046, pvalue=8.596798615585989e-05)
>> wardrobe size: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.44778682760331656, pvalue=7.629593258599141e-22)
>> pre-owned: p < 0.05, reject H0, significant deviation from normality


no normality: spearman correlation
SignificanceResult(statistic=0.07877425297732173, pvalue=0.32832309721340447)
>> p > 0.05, no evidence to reject H0, no correlation
```

3.   Total Amount of Dormant Items vs Total Amount of Pre-Owned Items

```
amount of pre-owned garments vs dormant garmants

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.44778682760331656, pvalue=7.629593258599141e-22)
>> pre-owned: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.8256126545688344, pvalue=2.3450037230383007e-12)
>> dormant: p < 0.05, reject H0, significant deviation from normality


no normality: spearman correlation
SignificanceResult(statistic=0.1516026941053018, pvalue=0.058861938062412286)
>> p > 0.05, no evidence to reject H0, no correlation
```

4. Wardrobe Characteristics in Relation to Gender

```
average wardrobe size: men vs women
men n: 78  - women n: 78

test homogeneity: Levene's test
LeveneResult(statistic=6.09386474735361, pvalue=0.014658334983677069)
>> p < 0.05, reject H0, significant differences in varience, hetrogeneity

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.939187286188923, pvalue=0.0010314277712413036)
>> men: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.9802320124748032, pvalue=0.266865969845362)
>> women: p > 0.05, no evidence to reject H0, no significant deviation from normality

no homogeneity or normality -> Mann-Whitney U test
MannWhitneyuResults(p-value=  1.424813895353034e-07 )
>> p < 0.05, reject H0, significant difference between the two groups
```

```
absolute count of dormant garments in the wardrobe: men vs women
men n: 78  - women n: 78

test homogeneity: Levene's test
LeveneResult(statistic=0.5243207874636772, pvalue=0.47010292743466486)
>> p > 0.05, no evidence to reject H0, no significant differences in varience, homogeneity

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.8038492160101351, pvalue=8.339030140548772e-09)
>> men: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.8373677759538559, pvalue=8.324105747613127e-08)
>> women: p < 0.05, reject H0, significant deviation from normality

homogeneity, but no normality -> Mann-Whitney U test
MannWhitneyuResults(p-value=  0.10986758211325377 )
>> p > 0.05, no basis to reject H0, no significant difference between the two groups
```

```
relative share of dormant garments in the wardrobe: men vs women
men n: 78  - women n: 78

test homogeneity: Levene's test
LeveneResult(statistic=1.023087534837598, pvalue=0.3133743211273129)
>> p > 0.05, no evidence to reject H0, no significant differences in variance, homogeneity

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.9655858737284054, pvalue=0.03322742145924821)
>> men: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.9484294699748593, pvalue=0.003260691407617835)
>> women: p < 0.05, reject H0, significant deviation from normality

homogeneity, but or normality -> Mann-Whitney U test
MannWhitneyuResults(p-value=  0.2581914029062037 )
>> p > 0.05, no basis to reject H0, no significant difference between the two groups
```

```
absolute count of pre-owned garments in a wardrobe: men vs women
men n: 78  - women n: 78

test homogeneity: Levene's test
LeveneResult(statistic=5.104189448590071, pvalue=0.025271372639976655)
>> p < 0.05, reject H0, significant differences in variance, heterogeneity

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.4631139637793983, pvalue=2.1403221795808396e-15)
>> men: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.5034715904167502, pvalue=8.242273856513568e-15)
>> women: p < 0.05, reject H0, significant deviation from normality

no homogeneity or normality -> Mann-Whitney U test
MannWhitneyuResults(p-value=  0.018535315716859763 )
>> p < 0.05, reject H0, significant difference between the two groups
```
```
relative share of pre-owned garments in a wardrobe: men vs women
men n: 78  - women n: 78

test homogeneity: Levene's test
LeveneResult(statistic=1.4006580079653628, pvalue=0.2384371038717211)
>> p > 0.05, no evidence to reject H0, no significant differences in variance, homogeneity

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.45889013704935533, pvalue=1.8666712307812513e-15)
>> men: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.5774337323665395, pvalue=1.2166422450121398e-13)
>> women: p < 0.05, reject H0, significant deviation from normality

no normality -> Mann-Whitney U test
MannWhitneyuResults(p-value=  0.037595290982152876 )
>> p < 0.05, reject H0, significant difference between the two groups
```

5. Wardrobe Characteristics in Relation to Age

```
Wardrobe size vs participants age

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.956563531903046, pvalue=8.596798615585989e-05)
>> wardrobe size: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.8848819165505798, pvalue=1.1777764564419448e-09)
>> age: p < 0.05, reject H0, significant deviation from normality


no normality: spearman correlation
SignificanceResult(statistic=0.21029774498492554, pvalue=0.008413037734211912)
>> p < 0.05, reject H0, there is a weak positive correlation
```

```
absolute count of pre-owned garments vs participants age

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.44778682760331656, pvalue=7.629593258599141e-22)
>> pre-owned: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.8848819165505798, pvalue=1.1777764564419448e-09)
>> age: p < 0.05, reject H0, significant deviation from normality


no normality: spearman correlation
SignificanceResult(statistic=-0.5052007900626428, pvalue=1.7459657451531096e-11)
>> p < 0.05, reject H0, there is a moderate negative correlation
```

```
absolute count of dormant garments vs participants age

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.8256126545688344, pvalue=2.3450037230383007e-12)
>> dormant: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.8848819165505798, pvalue=1.1777764564419448e-09)
>> age: p < 0.05, reject H0, significant deviation from normality


no normality: spearman correlation
SignificanceResult(statistic=-0.02965634280332125, pvalue=0.7132390433180704)
>> p > 0.05, no evidence reject H0, no correlation
```
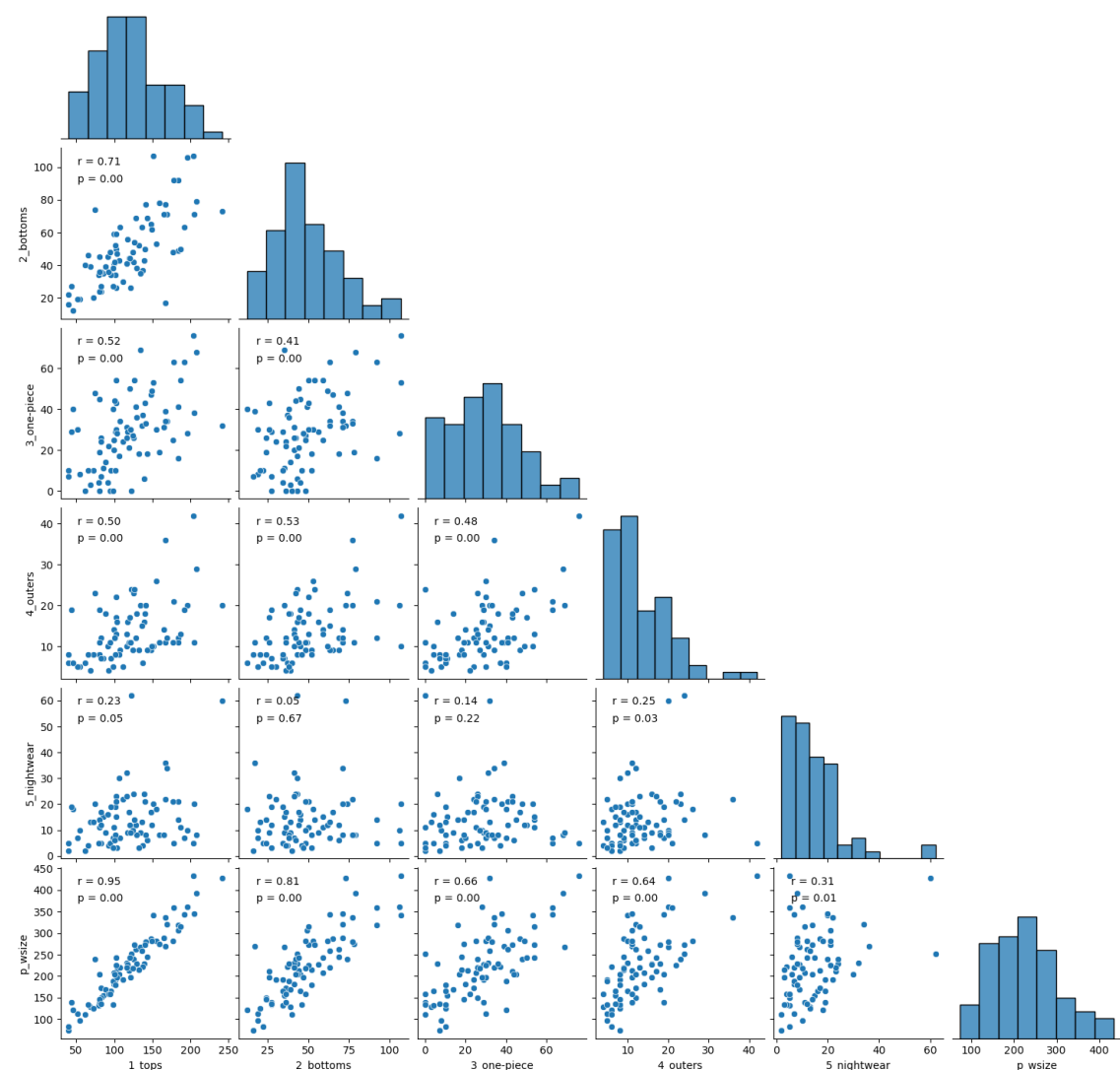
6.   Total Wardrobe Size vs Garment Category
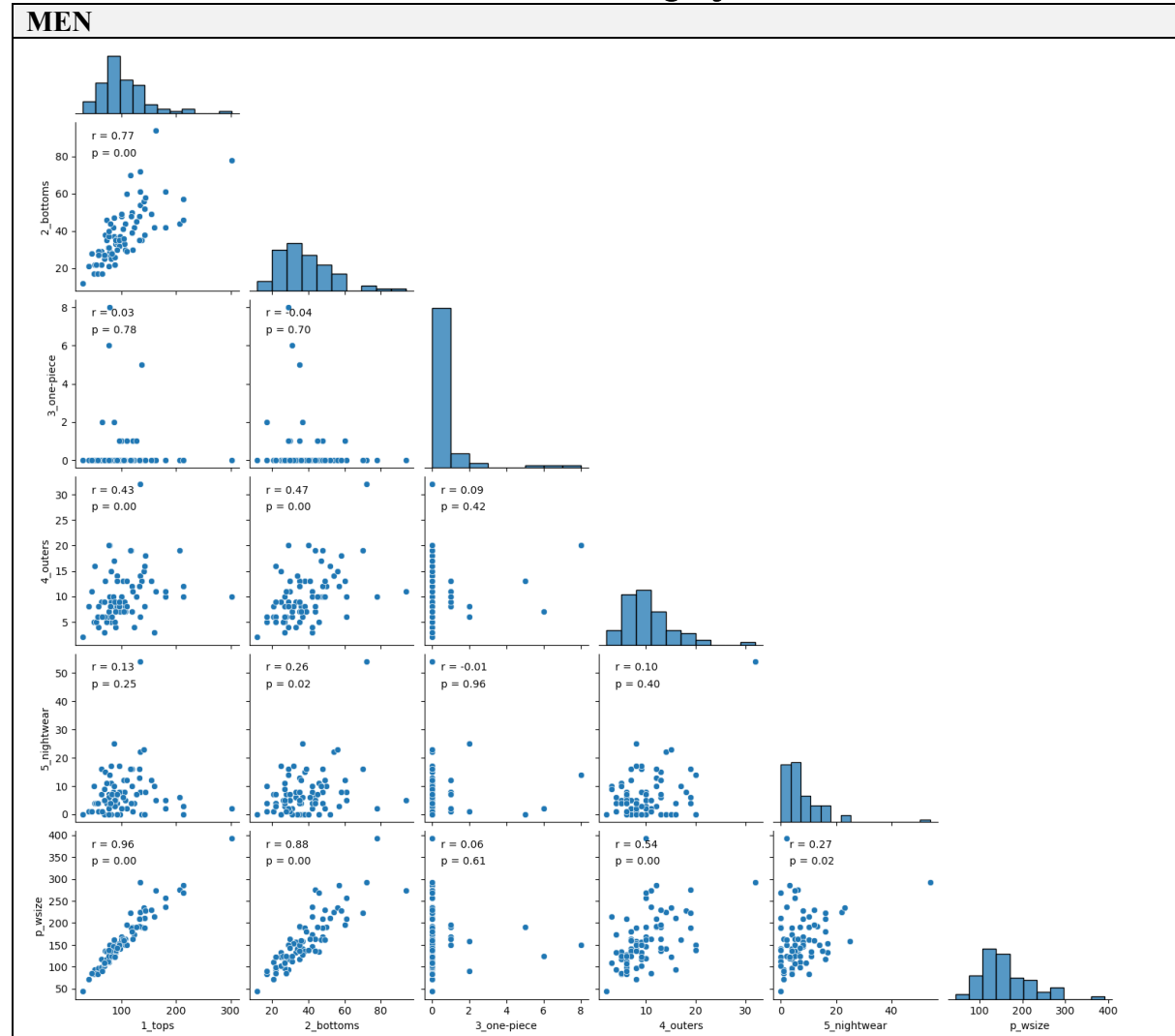
7. Wardrobe Characteristics in Relation to the Presence of Pre-Owned Garments

```
Total wardrobe size: with pre-owned vs without pre-owned
with pre-owned n: 62  - without pre-owned n: 94

test homogeneity: Levene's test
LeveneResult(statistic=array([2.77825068]), pvalue=array([0.097585]))
>> p > 0.05, no evidence to reject H0, assume homogeneity

test normality: Shapiro-Wilk test
ShapiroResult(statistic=0.95617941461324, pvalue=0.026733288830158065)
>> with PO: p < 0.05, reject H0, significant deviation from normality
ShapiroResult(statistic=0.9526309636259788, pvalue=0.0018586590397937455)
>> without PO: p < 0.05, reject H0, significant deviation from normality

no normality -> Mann-Whitney U test
MannWhitneyuResults(p-value=  [0.48796635] )
>> p > 0.05, no evidence to reject H0, no significant difference between the two groups
```

S3. REGRESSION MODEL: WARDROBE SIZE BASED ON PARTICIPANT ESTIMATE

1. OLS Models

Three regression models were built to predict the actual wardrobe size based on a participant's estimate and demographic characteristics. The first model was a simple linear regression between the participant's estimate and the observed wardrobe size. The estimate is found to be a significant predictor of wardrobe size. The second model includes other variables: age and gender. The coefficient is significant for both variables. Knowing these additional variables, which can be readily ascertained together with the estimate in an online survey, increases the model's predictive power. The third model includes an interaction between estimate and gender to ascertain if women guess differently from men. The coefficient of the interaction term is not significant, indicating there is no difference.

Table 1 – linear regression model for actual wardrobe size

| Wardrobe size	Model 1 Coef.		(se)	Model 2 Coef.		(se)	Model 3 Coef.		(se)
intercept	102.82	***	10.26	69.48	***	13.43	85.76	***	15.24
estimate	0.58	***	0.06	0.50	***	0.06	0.57	***	0.11
gender(Women=1)				39.6	***	9.46	50.60	*	20.68
age				0.62	*	0.24			
estimate*gender							-0.08		0.13
R^2-adj.	0.3838			0.4631			0.4396		
df	146			144			144		
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1									

2. Diagnostic Plots

Overview

1. **Residuals vs Fitted**: This plot checks the linear relationship assumptions. A horizontal line, without distinct patterns, indicates a linear relationship.
2. **Q-Q residuals**: This plot examines whether the residuals are normally distributed, should follow the straight dashed line.
3. **Scale-Location**: This plot is used to check the homogeneity of variance of the residuals (homoscedasticity). A horizontal line with equally spread points is a good indication of homoscedasticity.
4. **Residuals vs Leverage**. This plot is used to identify influential cases, that is extreme values that might influence the regression results when included or excluded from the analysis.
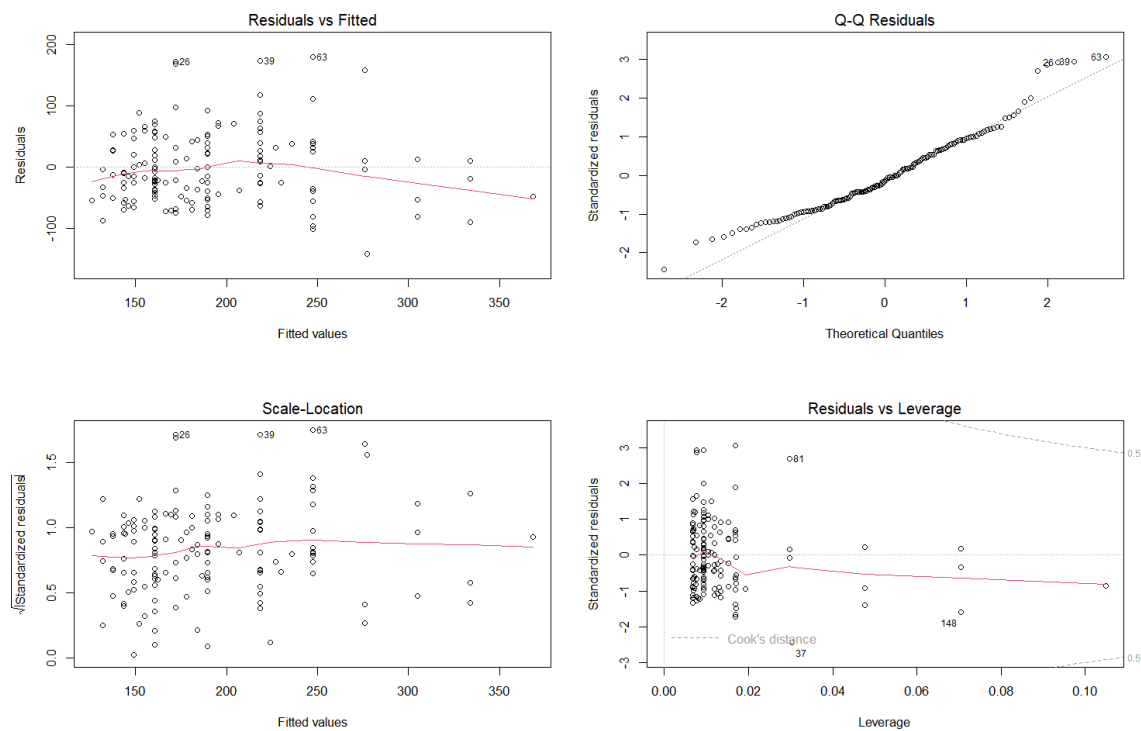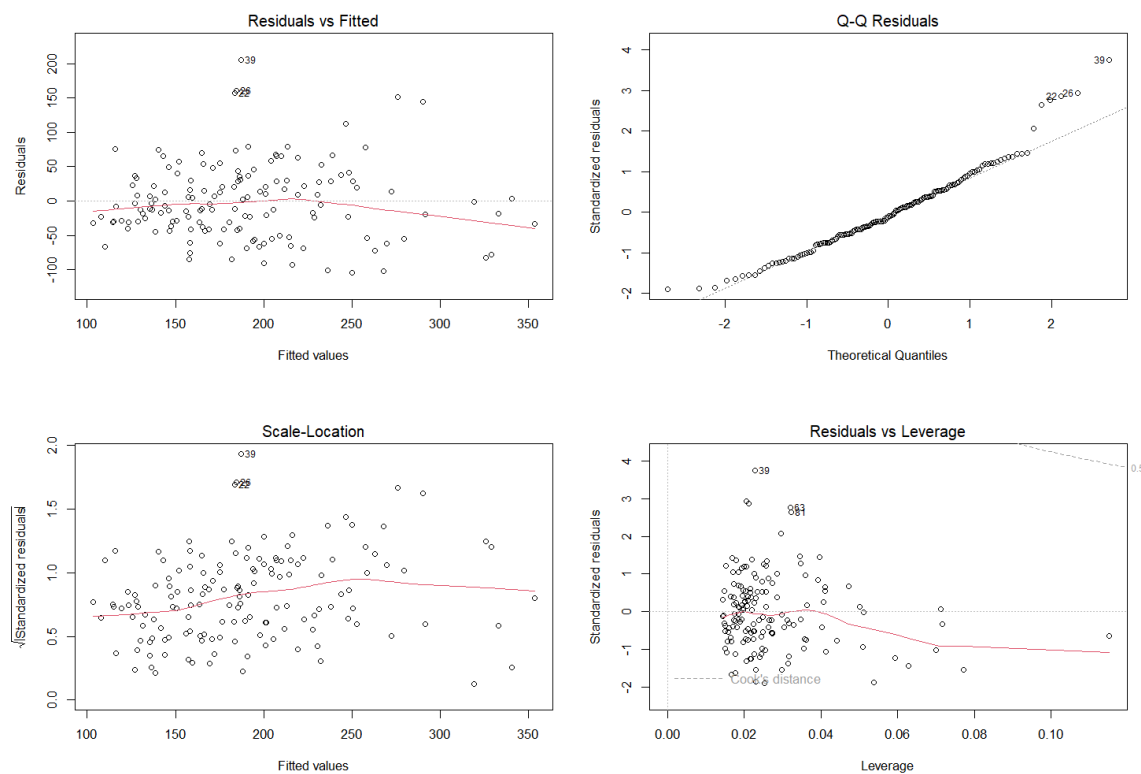
Figure 1. Diagnostic Plots for Linear Regression Analysis