

IMT 573: Problem Set 7 - Regression

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Collaborators:

Instructions: Before beginning this assignment, please ensure you have access to R and RStudio.

1. Download the `problemset7.Rmd` file from Canvas. Open `problemset7.Rmd` in RStudio and supply your solutions to the assignment by editing `problemset7.Rmd`.
2. Replace the “Insert Your Name Here” text in the `author:` field with your own full name. Any collaborators must be listed on the top of your assignment.
3. All materials and resources that you use (with the exception of lecture slides) must be appropriately referenced within your assignment. In particular, note that Stack Overflow is licensed as Creative Commons (CC-BY-SA). This means you have to attribute any code you refer from SO.
4. Partial credit will be awarded for each question for which a serious attempt at finding an answer has been shown. But please **DO NOT** submit pages and pages of hard-to-read code and attempts that are impossible to grade. That is, avoid redundancy. Remember that one of the key goals of a data scientist is to produce coherent reports that others can easily follow. Students are *strongly* encouraged to attempt each question and to document their reasoning process even if they cannot find the correct answer. If you would like to include R code to show this process, but it does not run without errors you can do so with the `eval=FALSE` option as follows:

```
a + b # these object don't exist
# if you run this on its own it will give an error
```

6. When you have completed the assignment and have **checked** that your code both runs in the Console and knits correctly when you click **Knit PDF**, rename the knitted PDF file to `ps6_ourLastName_YourFirstName.pdf`, and submit the PDF file on Canvas.
7. Collaboration is often fun and useful, but each student must turn in an individual write-up in their own words as well as code/work that is their own. Regardless of whether you work with others, what you turn in must be your own work; this includes code and interpretation of results. The names of all collaborators must be listed on each assignment. Do not copy-and-paste from other students' responses or code.

Setup In this problem set you will need, at minimum, the following R packages.

```
# Load standard libraries
library(tidyverse)
library(dplyr)
# Modern applied statistics functions
library(AmesHousing)
library(fastDummies)
```

Problem 1: Housing values in Ames, Iowa

In this problem we will continue using the Ames housing dataset. This dataset contains information about home sales in Ames, IA. You used this dataset in the previous problem set.

- As before, load the package and use `make_ames()` to store the dataset. (completed)
- Filter the data to only contain observations where the `Sale_Condition` was “Normal.” As before, the variables of interest are: `Lot_Frontage`, `Lot_Area`, `Bldg_Type`, `Overall_Qual`, `Overall_Cond`, `Year_Built`, `Gr_Liv_Area`, `TotRms_AbvGrd`, `Fireplaces`, `Garage_Cars`, `Garage_Area`, `Wood_Deck_SF`, `Total_Bsmt_SF`, `Full_Bath`, `Half_Bath`, `Year_Sold`, and `Sale_Price`. You will be modeling `Sale_Price`.

```
ames_housing_data <- make_ames()
```

Filter the data to only contain observations where the `Sale_Condition` was “Normal.” As before, the variables of interest are: `Lot_Frontage`, `Lot_Area`, `Bldg_Type`, `Overall_Qual`, `Overall_Cond`, `Year_Built`, `Gr_Liv_Area`, `TotRms_AbvGrd`, `Fireplaces`, `Garage_Cars`, `Garage_Area`, `Wood_Deck_SF`, `Total_Bsmt_SF`, `Full_Bath`, `Half_Bath`, `Year_Sold`, and `Sale_Price`. You will be modeling `Sale_Price`.

Filter normal

```
ames_housing_data_filter <- ames_housing_data %>%  
filter(Sale_Condition == "Normal")
```

filter with select

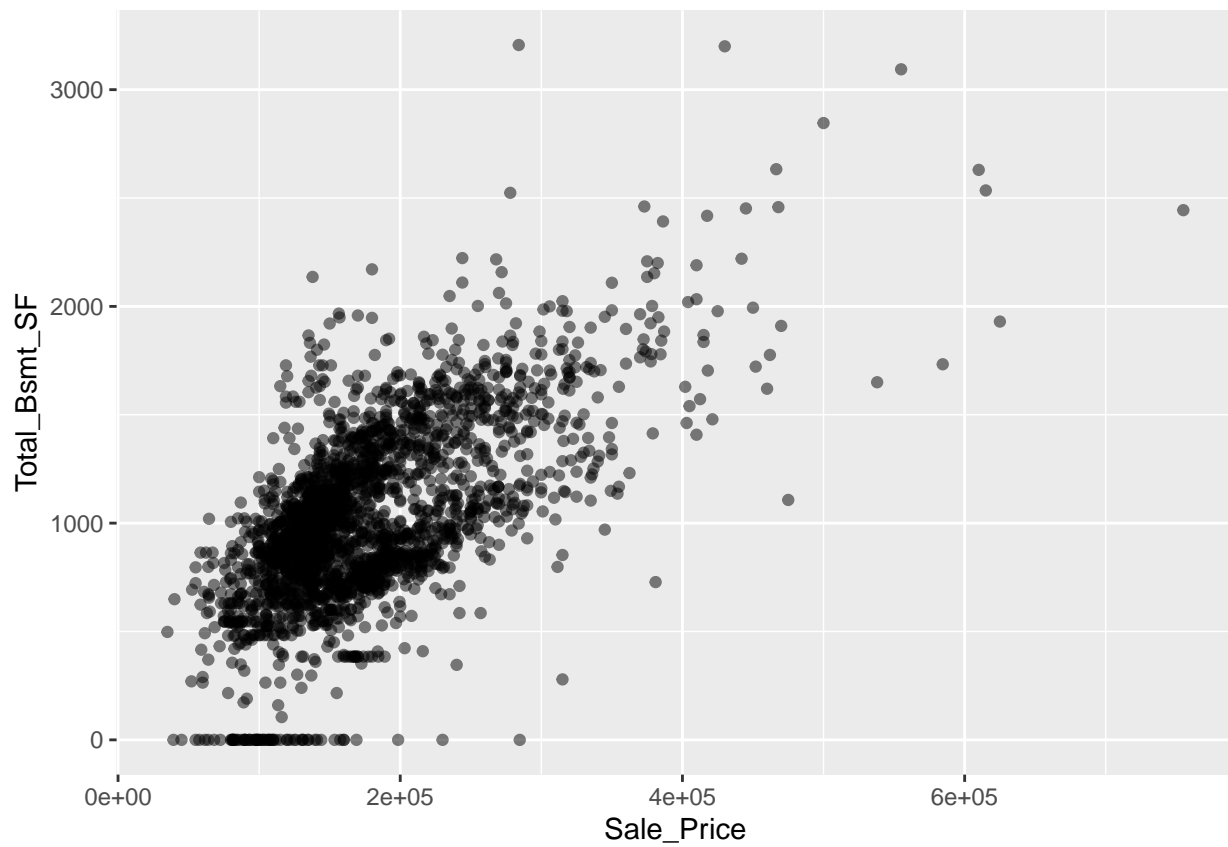
```
ames_housing_filter <- ames_housing_data_filter %>%  
select(Lot_Frontage, Lot_Area, Bldg_Type, Overall_Qual, Overall_Cond, Year_Built, Gr_Liv_Area, TotRms_AbvGrd, Fireplaces, Garage_Cars, Garage_Area, Wood_Deck_SF, Total_Bsmt_SF, Full_Bath, Half_Bath, Year_Sold, Sale_Price)
```

Part a Use the following predictors: `Garage_Cars`, `Gr_Liv_Area`, `Lot_Area`, and add an additional explanatory variable of your choice - something that you think might be interesting to analyze. Provide rationale for your choice of additional explanatory variable. For each predictor do the following:

1. Make a scatterplot that displays how `Sale_Price` is related to that predictor and add a line of best fit to that plot. Comment on the results - do you see any relationship?

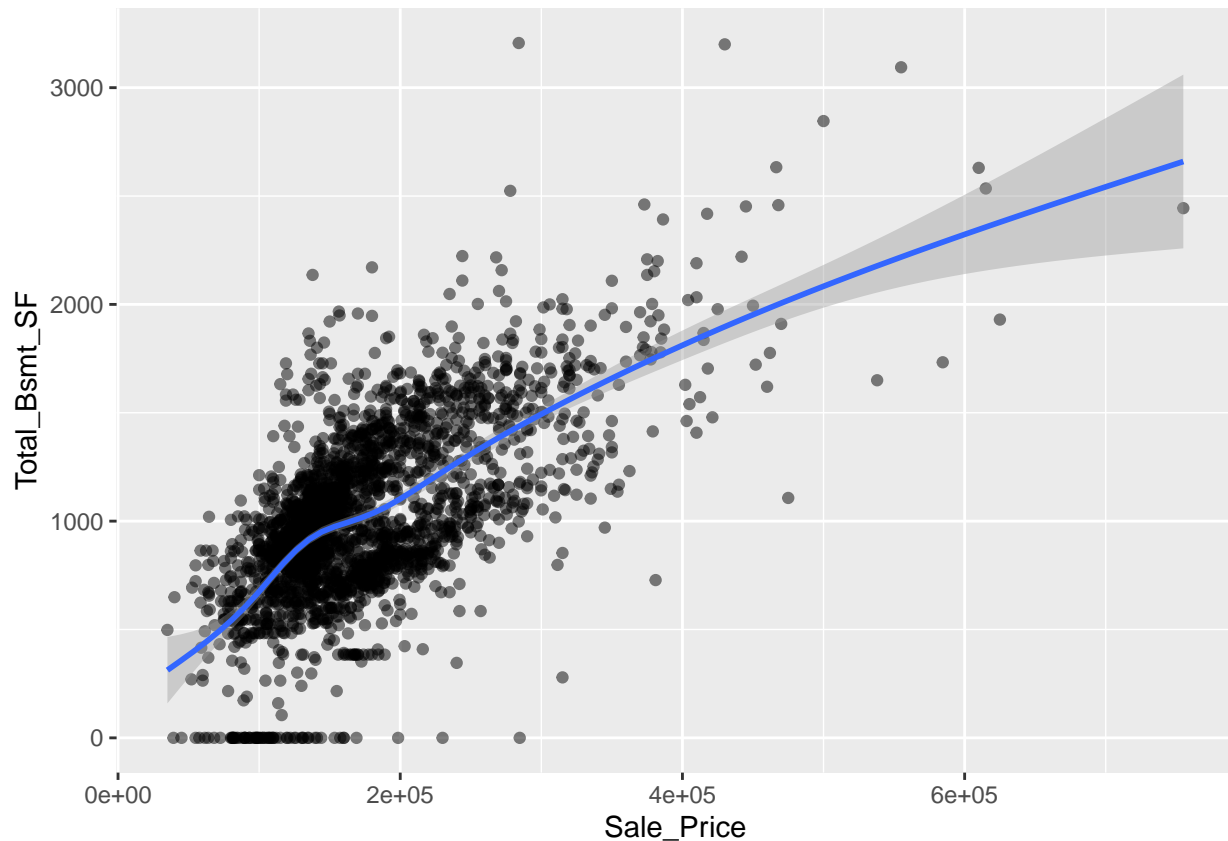
Scatter plot

```
sales_price_plot <- ggplot(data = ames_housing_data_filter, aes(x = Sale_Price, y = Total_Bsmt_SF )) +  
  geom_jitter(width = 0, height = 0.05, alpha = 0.5)  
  
show(sales_price_plot)
```



```
sales_price_plot +  
  geom_smooth()
```

```
## `geom_smooth()` using method = 'gam' and formula 'y ~ s(x, bs = "cs")'
```



Hint: add the line with `geom_smooth` or `abline` methods

```
data_with_dummies <- ames_housing_data_filter %>%
  dummy_cols(select_columns = "Overall_Cond")

data_with_dummies_select <- data_with_dummies %>%
  select(Garage_Cars, Gr_Liv_Area, Lot_Area, Sale_Price, Overall_Cond_Good, Overall_Cond_Poor, Overall_C
```

2. Now fit a multiple regression to model the response using the three required predictors and your explanatory variable of choice. Show the regression output.

model 2

question: Coefficients: (2 not defined because of singularities) What does this mean ?

```
model_1 <- lm(Sale_Price ~ ., data = data_with_dummies_select)
```

```
summary(model_1)
```

```
##
## Call:
## lm(formula = Sale_Price ~ ., data = data_with_dummies_select)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -192398  -20704   -2213   18780  318201
##
## Coefficients: (2 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
```

```
## (Intercept)          -4.046e+04  5.160e+03  -7.840  6.70e-15 ***
## Garage_Cars           3.013e+04  1.370e+03  21.985  < 2e-16 ***
## Gr_Liv_Area           7.846e+01  2.007e+00  39.096  < 2e-16 ***
## Lot_Area              8.070e-01  1.043e-01   7.738  1.48e-14 ***
## Overall_Cond_Good      3.717e+04  4.977e+03   7.469  1.13e-13 ***
## Overall_Cond_Poor     -2.600e+04  1.717e+04  -1.515    0.130
## Overall_Cond_Fair     -1.511e+03  8.121e+03  -0.186    0.852
## Overall_Cond_Very_Poor -3.770e+04  2.391e+04  -1.577    0.115
## Overall_Cond_Very_Good  3.906e+04  5.651e+03   6.912  6.11e-12 ***
## Overall_Cond_Very_Excellent NA         NA         NA         NA
## Overall_Cond_Excellent  5.526e+04  7.911e+03   6.985  3.66e-12 ***
## Overall_Cond_Average   4.766e+04  4.683e+03  10.176  < 2e-16 ***
## Overall_Cond_Above_Average 3.088e+04  4.860e+03   6.354  2.51e-10 ***
## Overall_Cond_Below_Average NA         NA         NA         NA
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 40570 on 2401 degrees of freedom
## Multiple R-squared:  0.6748, Adjusted R-squared:  0.6733
## F-statistic: 453 on 11 and 2401 DF, p-value: < 2.2e-16
```

3. Interpret the coefficients. Explain why you think you see (or don't see) the relationship on the figures or the model. Try to think about the possible processes that make certain neighborhoods more or less expensive.

model 2 I decided to go with model 2 because I wanted to challenge myself and use the qualitative answers of the column Overall_Condition. In doing this I discover we can see a strong correlation to sales_Price and the quality rating variable. Taking the extremes of Overall_Cond_Very_Poor -3.770e+04 & Overall_Cond_Excellent 5.526e+04 we can see a large value differential and that there is a value increase of 5.526e+04 for houses rated in Excellent Condition.

Review

I see a strong correlation in Sales price and all four predictors Garage_Cars, Gr_Liv_Area, Lot_Area, Total_Bsmt_SF I believe the relationship of the co-efficients and property value in this case has to tie directly to square footage. But it would also have to do with other factors as well that are not located within the data-set.

Part b

1. In Problemset6, question 5, you had built a kitchen-sink model by fitting a multiple regression model to predict the response using all of the predictors. Now compare the results for **Garage_Cars**, **Gr_Liv_Area** and **Lot_Area** across the multiple regression and the simple regressions that you just built. Interpret your results. Explain why the values differ.

My Adjusted r-squared in Model 2 0.6733 in comparison to the model 16 from problem set 6 which had a adjusted r squared of 0.9067 indicate that the more variables you have within a model the better your r-square will be. But I'm not sure if that correlates to a more accurate fit or not. In regards to the three variables Garage_Cars, Gr_Liv_Area, & Lot_Area we see something as well

Table model 16 represents the kitchen sink

model	Garage Cars	Gr Liv Area	Lot Area
model 2	3.013e+04 ***	7.846e+01 ***	8.070e-01***
model 16	3.346e+03 *	6.452e+01***	6.651e-01***

Review

In comparison the model we fitted all the predictors within the model against the model with 3 predictors we see a more accurate r squared in the kitchen sink model. But most importantly we can see the difference of statistical significance in co-effecient Garage Cars that in the table presented changes in model 2 it was more significant in comparison to model 16. I would presume its becasue the kitchen sink model has more information to pull from thus altering co-effecients significance level.

Problem 2: Neighborhoods and Social Capital

A paper by Vanholm & Monaghan in 2020 analyzed how evictions influence social capital across neighborhoods. The paper is available in Canvas under readings. They proxy social capital with number of 311 calls. These are similar to 911 emergency calls, but for non-urgent purposes (such as garbage or potholes on street). They estimate the model in the form:

$$311calls_i = \beta_0 + \beta_1.evictions_i + \beta_2.demographics_i + \beta_3.urbanCharacter_i + \epsilon$$

Here **evictions** is the number of evictions in neighborhood i , **demographics** is a vector of neighborhood demographic characteristics, and **urbanCharacter** is a vector of urban environment specific variables. β_1 is the variable of interest, the effect of evictions on social capital. Note, the paper actually uses the logs of a number of variables. For now, ignore logarithms when attempting to answer this particular question. The researchers' results are in Table 3 (page 8). There are three models shown and let's focus on model 3 (the column labeled as "(3)'") and ignore the other two models. Again, ignore the fact that some variables are on a log scale by simply assuming they are not.

Answer the following questions and include your interpretation of the model outputs:

Part a

- Do neighborhoods with more evictions see more or less 311 calls? By how much?
 - When looking at the bivariate relationship between eviction and calls we observe a significant difference with eviction being negatively related to calls for service. with a unit decrease of -0.057
- How is poverty rate associated with 311 calls? How many more (or fewer) calls there are in neighborhoods with 10% point more poverty?
 - Areas with higher rates of poverty observed fewer calls for service.
- What can you tell about association of race (*white*) and calls?
 - The association between white and calls have are negatively related with a unit decrease of -0.091 or -0.038
- Is older median age associated with more or less 311 calls? At which level is this statistically significant?
 - Areas with higher median ages saw more calls to 311 0.35 it becomes statistically significant.
- The value for housing density is -0.13. What does this number mean?

- The value for housing density means that when the calls are at 0 there is a negative relationship of -0.13 per unit.
6. The omitted category for city is Austin, TX. Are there more or fewer calls in similar neighborhoods in Philadelphia, compared to Austin? By how much?
- In considering the omitted neighborhood do I use the constant as the omitted one?

Part b

1. Extra Credit: repeat the previous question, but now take into account the fact that some of the variables are on a log scale. Answer the questions accordingly.

Problem 4: Price of Meal in Italian Restaurants in NYC

The Italian restaurants in New York City are legendary and it's time to put your newly developed regression modeling skills to work to understand how they operate. What are the factors that contribute to the price of a meal at Italian restaurants in New York City?

- The factors that contribute to the price of a meal are food quality, Decor, & Service.

You will address this question with a series of multiple regression models. The Zagat guide is an influential review of restaurants. You will be looking at the numeric reviews posted on the Zagat review. Each restaurant is rated on a scale of 0 to 30 for the quality of its food, decor, and service. The data comes in the form of Zagat reviews from 168 Italian restaurants in New York City from 2001. The data is contained in the `nyc.csv` file on Canvas.

```
nyc <- read.csv("~/Downloads/nyc.csv")
```

```
dim(nyc)
```

```
## [1] 168 7
```

```
# 168 x 7
```

```
str(nyc)
```

```
## 'data.frame': 168 obs. of 7 variables:
## $ Case : int 1 2 3 4 5 6 7 8 9 10 ...
## $ Restaurant: chr "Daniella Ristorante" "Tello's Ristorante" "Biricchino" "Bottino" ...
## $ Price : int 43 32 34 41 54 52 34 34 39 44 ...
## $ Food : int 22 20 21 20 24 22 22 20 22 21 ...
## $ Decor : int 18 19 13 20 19 22 16 18 19 17 ...
## $ Service : int 20 19 18 17 21 21 21 21 22 19 ...
## $ East : int 0 0 0 0 0 0 0 1 1 1 ...
```

The type of data that exist in this dataframe is information about restaurants in NYC, it has the price it cost as well as other rating of the food decor and service lastly it consist of geographical direction of the restaurant **Part a)**

Part a

1. You plan to visit an Italian restaurant for lunch. You check the Zagat review for three different restaurants and you find that Zagat has rated the quality of food for those restaurants as 20, 25, 35. What's your best estimate of the price of a meal that you would need to pay for lunch at each of these restaurants? *Hint: Before coming up with your best estimate you need to build a model and interpret your results. Also explain your choice of model*
- The best estimate for price is considering the variables in which influence price. which i would presume to be Food, Decor, and Service. I choose to run linear regression models because of the data we are given

appears that it can be modeled through a linear regression. So an inclusive approach in this because there are multiple factors drive price and not just one variable would work for gaining information.

Model: Linear regression

```
lunch_model_1 <- lm(Price ~ Food + Decor + Service , data = nyc)
summary(lunch_model_1)
```

```
##
## Call:
## lm(formula = Price ~ Food + Decor + Service, data = nyc)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -14.8440  -3.7039  -0.1525   3.6218  19.0576
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -24.6409     4.7536  -5.184 6.33e-07 ***
## Food         1.5556     0.3731   4.170 4.93e-05 ***
## Decor        1.8473     0.2176   8.491 1.17e-14 ***
## Service      0.1350     0.3957   0.341  0.733
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 5.803 on 164 degrees of freedom
## Multiple R-squared:  0.617, Adjusted R-squared:  0.61
## F-statistic: 88.06 on 3 and 164 DF, p-value: < 2.2e-16
```

- I decided to run a linear regression model on nyc data set to see how Food quality, Decor, & Service impacted Price. where food and decor a statistically significant and has a impact on price.
2. Your office offers you a \$100 reimbursement coupon for your lunch that you are only allowed to use in one go for a lunch meal. Given what you know about the relationship between food quality and price, the three restaurant suggestions, and that you need to provide at least 15% tip for your meal, which restaurant would you pick and why to stay within budget?
- Given what i know I believe any one of the three prices would work because they all fit withing the reimbursement coupon

Part b

1. Based on your knowledge of the restaurant industry, do you think that the quality of the food as well as the service in a restaurant are important determinants of the price of a meal at that restaurant? How will you prove your intuition through regression modeling? Build a model and interpret the model output.
 - based on my knowledge I do beleive that quality of food and service is a key determinant of price of a meal. I will prove my intuition through regression modeliong by doing a multiple regression as well as a singular one of the two to see how they impact price of foods isolated.
2. Another important consideration in dining out is the decor. Are people willing to pay more for better restaurant decor? More interestingly, are people willing to pay more for fancy Decor, irrespective of the quality of food? How much more? Now answer this question with an appropriate model. Justify the choice of your model and variables that go into the model.

```
decor_model <- lm(Price ~ Decor, data = nyc)
```



```
summary(decor_model)
```

```
##
## Call:
## lm(formula = Price ~ Decor, data = nyc)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -14.9578  -4.4862  -0.4673   4.0422  18.5138
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -1.362      3.292  -0.414    0.68
## Decor          2.490      0.184  13.537 <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 6.426 on 166 degrees of freedom
## Multiple R-squared:  0.5247, Adjusted R-squared:  0.5218
## F-statistic: 183.2 on 1 and 166 DF,  p-value: < 2.2e-16
```

- I created a linear regression that returns people are willing to pay more for showing a strong significance level and a unit increase of 2.49 dollars increase per unit.

Problem 5: Mario Kart

For this problem, use the Mario Kart that is part of the `openintro` library (load the library and access the data using the `mariokart` command. See here for more info on the data: <https://www.openintro.org/data/index.php?data=mariokart>.

1. Inspect the data using your usual inspect data functions to get a sense of how the variables are encoded and what values they typically take on. Describe the data and variables.

```
mario_kart <- read.csv("~/Downloads/mariokart.csv")
```

```
str(mario_kart)
```

```
## 'data.frame':   143 obs. of  12 variables:
## $ id           : num  1.5e+11 2.6e+11 3.2e+11 2.8e+11 1.7e+11 ...
## $ duration     : int   3 7 3 3 1 3 1 1 3 7 ...
## $ n_bids       : int   20 13 16 18 20 19 13 15 29 8 ...
## $ cond         : chr   "new" "used" "new" "new" ...
## $ start_pr     : num   0.99 0.99 0.99 0.99 0.01 ...
## $ ship_pr      : num    4 3.99 3.5 0 0 4 0 2.99 4 4 ...
## $ total_pr     : num   51.5 37 45.5 44 71 ...
## $ ship_sp      : chr   "standard" "firstClass" "firstClass" "standard" ...
## $ seller_rate  : int   1580 365 998 7 820 270144 7284 4858 27 201 ...
## $ stock_photo  : chr   "yes" "yes" "no" "yes" ...
## $ wheels       : int    1 1 1 1 2 0 0 2 1 1 ...
## $ title        : chr   "~~ Wii MARIO KART & WHEEL ~ NINTENDO Wii ~ BRAND NEW ~~" "Mariokart Wii Ni
```

```
dim(mario_kart)
```

```
## [1] 143 12
```

2. Does the duration of the auction effect the price of a MarioKart? To answer this, build an appropriate model and interpret the results to answer this question.

- yes and no the duration of the auction has a negative relationship but is not statistically significant.
- I would also consider trying to run a Poisson model because of the discrete variable. but for all things considered I stuck with linear regression model.

```
mario_model_1 <- lm(total_pr ~ duration, data = mario_kart)

summary(mario_model_1)
```

```
##
## Call:
## lm(formula = total_pr ~ duration, data = mario_kart)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -22.035  -8.116  -3.015   3.209  277.953
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  51.4246     3.8168   13.47  <2e-16 ***
## duration    -0.4097     0.8360   -0.49   0.625
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 25.76 on 141 degrees of freedom
## Multiple R-squared:  0.0017, Adjusted R-squared:  -0.00538
## F-statistic: 0.2402 on 1 and 141 DF,  p-value: 0.6249
```

3. Experiment with other variables you see fit for this task, that is to see how they effect the price of an auction. Do other variables change your results in a major way? Did you have to exclude any variables before fitting the model? Make sure that you build an appropriate model while explaining your choice and interpret the results to answer the questions.

```
mario_model_2 <- lm(total_pr ~ ., data = mario_kart)

summary(mario_model_2)
```

```
##
## Call:
## lm(formula = total_pr ~ ., data = mario_kart)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -7.1524  -0.0298   0.0000   0.0442  10.9401
##
## Coefficients: (1 not defined because of singularities)
##
##              Estimate
## (Intercept)  5.224e+01
## id          2.692e-12
## duration    -8.790e-01
## n_bids      -5.237e-02
## condused    -2.031e+00
## start_pr     1.947e-02
## ship_pr      3.914e-01
```

## ship_spmedia	1.104e+00
## ship_spothe	-5.333e-01
## ship_spparcel	6.731e+00
## ship_sppriority	3.996e+00
## ship_spstandard	6.054e+00
## ship_spups3Day	-8.568e+00
## ship_spupsGround	1.395e+00
## seller_rate	-2.602e-04
## stock_photoyes	-1.003e+00
## wheels	5.256e+00
## title NINTENDO Wii Mario Kart 2 wheels 1 reg & 1 sport NR E	-2.025e+01
## title~~ Wii MARIO KART & WHEEL ~ NINTENDO Wii ~ BRAND NEW ~~	-8.888e+00
## title10 Nintendo Wii Games - MarioKart Wii, SpiderMan 3, etc	6.357e+01
## titleBrand New Mario Kart Wii Comes with Wheel. Free Ship	-1.461e+01
## titleBRAND NEW NINTENDO 1 WII MARIO KART WITH 2 WHEELS +GAME	-1.109e+00
## titleBRAND NEW NINTENDO MARIO KART WITH 2 WHEELS	-7.163e+00
## titleBRAND NEW! FACTORY SEALED! MARIO KART WITH Wii WHEEL	-4.875e+00
## titleMARIO KART - NINTENDO WII =====	-3.864e+00
## titleMario Kart (Wii) with Wii Wheel	-1.795e+01
## titleMario Kart & Wheel Nintendo Wii Game Free Priority Mail	-3.863e+00
## titleMARIO KART for Nintendo Wii	-1.557e+01
## titleMARIO KART FOR NINTENDO Wii WITH 2 WHEELS + GAME	-5.994e+00
## titleMario Kart For Wii with 2-steering wheels NO RESERVE	-8.026e+00
## titleMario Kart Nintendo Wii Game Complete & MINT !	-9.645e+00
## titleMario Kart Wii	-1.408e+01
## titleMario Kart Wii (GAME ONLY/NO WHEEL) - Nintendo Wii Game	5.854e+01
## titleMario Kart Wii (Nintendo Wii) comes with 2 Wheels NEW!!	-1.617e+01
## titleMario Kart Wii (Nintendo Wii) Complete, Mint!!	-1.104e+01
## titleMario Kart Wii (Wii)	-1.178e+01
## titleMario Kart Wii (Wii) - Complete! Perfect!	-1.205e+01
## titleMario Kart Wii (Wii) *SEALED*	-3.126e+00
## titleMario Kart Wii (Wii) - Brand New & Sealed!!	-1.189e+01
## titleMario Kart Wii (Wii) - Comes with Wheel - Used	-9.767e+00
## titleMario Kart Wii (Wii) - GAME ONLY	1.168e+00
## titleMario Kart Wii (Wii) - NIB - Factory Sealed - NR	-1.119e+01
## titleMario Kart Wii (Wii) + 4 nerf wheels	-1.171e+01
## titleMario Kart Wii (Wii) COMPLETE	-1.284e+00
## titleMario Kart Wii (Wii) game	-2.229e+01
## titleMario Kart Wii (Wii) game and 2 wheels!	1.898e+00
## titleMario Kart Wii (Wii) Game and Steering Wheel	-1.487e+01
## titleMario Kart Wii (Wii) In Original Box With Wheel	-1.227e+01
## titleMario Kart Wii (Wii) Includes Steering Wheel!	-6.512e+00
## titleMario Kart Wii (Wii) Nintendo Wii game *--WOW --AWESOME	-1.760e+01
## titleMario Kart Wii (Wii) USED ONLY ONCE! MINT CONDITION!	-6.895e+00
## titleMario Kart Wii (Wii) Used Ships Free!	-3.698e+00
## titleMario Kart Wii (Wii) w/ TWO OFFICIAL STEERING WHEELS	-2.413e+00
## titleMario Kart Wii (Wii) w/ Wii Wheel	-1.340e+01
## titleMario Kart Wii (Wii) w/2 Nintendo Wheels Excellent Cond	-2.794e+00
## titleMario Kart Wii (Wii) W/RACING WHEEL!	-1.609e+01
## titleMario Kart Wii (Wii) with 1 Wheel	-1.414e+01
## titleMario Kart Wii + Wheel	-9.073e+00
## titleMario Kart Wii Complete	-1.010e+01
## titleMario Kart Wii Game with 1 Wheel - (Wii)	-3.955e+00
## titleMario Kart Wii Good Condition (No Wii Wheel)	-1.532e+01

## titleMario Kart Wii Nintendo Super	-1.421e+01
## titleMario Kart Wii Nintendo Wii Game & Wheel	-1.991e+01
## titleMario Kart Wii w/ wheel	-1.019e+01
## titleMario Kart Wii WITH BONUS WHEEL!!!!	-6.367e+00
## titleMario Kart Wii with Bonus Wheel!!! (2 Wheels Included)	-7.356e+00
## titleMARIO KART WII WITH STEERING WHEEL NEW NINTENDO WII	-5.296e+00
## titleMario Kart Wii with Wii Wheel	-1.788e+01
## titleMario Kart Wii with Wii Wheel for Nintendo Wii FASTSHIP	-1.164e+01
## titleMario Kart Wii, Game and Wheel, Brand New Sealed	-9.711e+00
## titleMario Kart with 2 wheels by Wii	-1.954e+01
## titleMARIO KART WITH WII OFFICIAL WHEEL+1 COBALT BLUE WHEEL	2.661e+01
## titleMARIO KART WITH WII WHEEL+1 GT PRO PINK WII WHEEL BUNDL	2.839e+01
## titleMarioKart (Wii) w/ wheel	-1.779e+01
## titleMarioKart Mario Kart Nintendo Wii Rare great game race	-8.496e+00
## titleMarioKart Wii	-1.322e+01
## titleMariokart Wii Nintendo with wheel - Mario Kart Nintendo	-1.277e+01
## titleNEW MARIO KART GAME+OFFICIAL WHITE+CRIMSON RED WHEELS!!	2.653e+01
## titleNEW Mario Kart Nintendo Wii Racing Game w/Wheel Online	-8.412e+00
## titleNEW MARIO KART WITH WII WHEEL+2 GT PRO WHITE WII WHEEL	3.147e+01
## titleNew Nintendo Super Mario Kart Wii with Steering Wheel	-6.190e+00
## titleNintedo Wii Console Bundle Guitar Hero 5 Mario Kart	2.561e+02
## titleNINTENDO ~ MARIO KART Wii ~ NEW IN BOX ~ FACTORY SEALED	-9.512e+00
## titleNintendo Wii : Mario Kart Wii w/ Wii Wheel (2008, MINT)	-1.683e+00
## titleNINTENDO WII MARIO KART GAME DISK WITH TWO (2) WHEELS	-1.099e+01
## titleNintendo Wii Mario Kart GAME ONLY	-3.566e+00
## titleNintendo Wii Mario Kart With 2 Racing Wheels	-8.624e+00
## titleNINTENDO WII MARIOKART (WHEEL AND GAME)	-1.570e+01
## titleNintendo Wii MarioKart and Steering Wheel	-5.178e+00
## titleNINTENDO WII SUPER Mario Kart GAME ONLY NO Wheel NEW *	6.037e+01
## titleSuper Mario Kart Nintendo Wii Video Game Driving SMK	-2.318e+01
## titleWii MARIO KART GAME PLUS 3 STEERING WHEELS! Wii	-3.044e+00
## titleWii game Mario Kart in box with 1 wheel Fast Shipping	-9.417e+00
## titleWii Mario Kart Game & Wheel In Original Box Tested WKIN	-1.306e+01
## titleWii Mario Kart game + wheel: NIB, factory sealed	-1.365e+01
## titleWii Mario Kart Great Condition!	NA
##	Std. Error
## (Intercept)	8.356e+00
## id	7.045e-12
## duration	5.658e-01
## n_bids	1.233e-01
## condused	2.824e+00
## start_pr	1.525e-01
## ship_pr	4.327e-01
## ship_spmedia	5.166e+00
## ship_spothor	5.516e+00
## ship_spparcel	3.551e+00
## ship_sppriority	4.133e+00
## ship_sptestandard	4.122e+00
## ship_spups3Day	7.630e+00
## ship_spupsGround	4.366e+00
## seller_rate	3.466e-04
## stock_photoyes	2.472e+00
## wheels	1.613e+00
## title NINTENDO Wii Mario Kart 2 wheels 1 reg & 1 sport NR E	9.245e+00

## title~~ Wii MARIO KART & WHEEL ~ NINTENDO Wii ~ BRAND NEW ~~	8.305e+00
## title10 Nintendo Wii Games - MarioKart Wii, SpiderMan 3, etc	8.183e+00
## titleBrand New Mario Kart Wii Comes with Wheel. Free Ship	7.783e+00
## titleBRAND NEW NINTENDO 1 WII MARIO KART WITH 2 WHEELS +GAME	9.373e+00
## titleBRAND NEW NINTENDO MARIO KART WITH 2 WHEELS	8.728e+00
## titleBRAND NEW! FACTORY SEALED! MARIO KART WITH Wii WHEEL	9.491e+00
## titleMARIO KART - NINTENDO WII =====	5.942e+00
## titleMario Kart (Wii) with Wii Wheel	9.694e+00
## titleMario Kart & Wheel Nintendo Wii Game Free Priority Mail	1.684e+01
## titleMARIO KART for Nintendo Wii	9.589e+00
## titleMARIO KART FOR NINTENDO Wii WITH 2 WHEELS + GAME	6.891e+00
## titleMario Kart For Wii with 2-steering wheels NO RESERVE	8.555e+00
## titleMario Kart Nintendo Wii Game Complete & MINT !	9.406e+00
## titleMario Kart Wii	7.234e+00
## titleMario Kart Wii (GAME ONLY/NO WHEEL) - Nintendo Wii Game	9.235e+01
## titleMario Kart Wii (Nintendo Wii) comes with 2 Wheels NEW!!	7.976e+00
## titleMario Kart Wii (Nintendo Wii) Complete, Mint!!	6.413e+00
## titleMario Kart Wii (Wii)	5.601e+00
## titleMario Kart Wii (Wii) - Complete! Perfect!	8.976e+00
## titleMario Kart Wii (Wii) *SEALED*	8.502e+00
## titleMario Kart Wii (Wii) - Brand New & Sealed!!	7.565e+00
## titleMario Kart Wii (Wii) - Comes with Wheel - Used	6.176e+00
## titleMario Kart Wii (Wii) - GAME ONLY	7.484e+00
## titleMario Kart Wii (Wii) - NIB - Factory Sealed - NR	9.255e+00
## titleMario Kart Wii (Wii) + 4 nerf wheels	1.101e+01
## titleMario Kart Wii (Wii) COMPLETE	6.900e+00
## titleMario Kart Wii (Wii) game	8.222e+00
## titleMario Kart Wii (Wii) game and 2 wheels!	7.475e+00
## titleMario Kart Wii (Wii) Game and Steering Wheel	5.569e+00
## titleMario Kart Wii (Wii) In Original Box With Wheel	8.842e+00
## titleMario Kart Wii (Wii) Includes Steering Wheel!	6.036e+00
## titleMario Kart Wii (Wii) Nintendo Wii game *--WOW --AWESOME	7.575e+00
## titleMario Kart Wii (Wii) USED ONLY ONCE! MINT CONDITION!	7.591e+00
## titleMario Kart Wii (Wii) Used Ships Free!	5.857e+00
## titleMario Kart Wii (Wii) w/ TWO OFFICIAL STEERING WHEELS	8.591e+00
## titleMario Kart Wii (Wii) w/ Wii Wheel	7.242e+00
## titleMario Kart Wii (Wii) w/2 Nintendo Wheels Excellent Cond	7.937e+00
## titleMario Kart Wii (Wii) W/RACING WHEEL!	6.881e+00
## titleMario Kart Wii (Wii) with 1 Wheel	9.279e+00
## titleMario Kart Wii + Wheel	9.195e+00
## titleMario Kart Wii Complete	8.427e+00
## titleMario Kart Wii Game with 1 Wheel - (Wii)	9.504e+00
## titleMario Kart Wii Good Condition (No Wii Wheel)	8.935e+00
## titleMario Kart Wii Nintendo Super	7.680e+00
## titleMario Kart Wii Nintendo Wii Game & Wheel	7.815e+00
## titleMario Kart Wii w/ wheel	7.355e+00
## titleMario Kart Wii WITH BONUS WHEEL!!!!	7.225e+00
## titleMario Kart Wii with Bonus Wheel!!! (2 Wheels Included)	7.396e+00
## titleMARIO KART WII WITH STEERING WHEEL NEW NINTENDO WII	6.155e+00
## titleMario Kart Wii with Wii Wheel	8.874e+00
## titleMario Kart Wii with Wii Wheel for Nintendo Wii FASTSHIP	6.072e+00
## titleMario Kart Wii, Game and Wheel, Brand New Sealed	1.004e+01
## titleMario Kart with 2 wheels by Wii	9.417e+00
## titleMARIO KART WITH WII OFFICIAL WHEEL+1 COBALT BLUE WHEEL	4.511e+01

## titleMARIO KART WITH WII WHEEL+1 GT PRO PINK WII WHEEL BUNDL	4.604e+01
## titleMarioKart (Wii) w/ wheel	7.395e+00
## titleMarioKart Mario Kart Nintendo Wii Rare great game race	6.624e+00
## titleMarioKart Wii	7.251e+00
## titleMariokart Wii Nintendo with wheel - Mario Kart Nintendo	5.539e+00
## titleNEW MARIO KART GAME+OFFICIAL WHITE+CRIMSON RED WHEELS!!	4.516e+01
## titleNEW Mario Kart Nintendo Wii Racing Game w/Wheel Online	7.465e+00
## titleNEW MARIO KART WITH WII WHEEL+2 GT PRO WHITE WII WHEEL	4.535e+01
## titleNew Nintendo Super Mario Kart Wii with Steering Wheel	8.184e+00
## titleNintedo Wii Console Bundle Guitar Hero 5 Mario Kart	1.270e+01
## titleNINTENDO ~ MARIO KART Wii ~ NEW IN BOX ~ FACTORY SEALED	6.579e+00
## titleNintendo Wii : Mario Kart Wii w/ Wii Wheel (2008, MINT)	6.725e+00
## titleNINTENDO WII MARIO KART GAME DISK WITH TWO (2) WHEELS	9.064e+00
## titleNintendo Wii Mario Kart GAME ONLY	7.012e+00
## titleNintendo Wii Mario Kart With 2 Racing Wheels	8.241e+00
## titleNINTENDO WII MARIOKART (WHEEL AND GAME)	9.707e+00
## titleNintendo Wii MarioKart and Steering Wheel	7.265e+00
## titleNINTENDO WII SUPER Mario Kart GAME ONLY NO Wheel NEW *	8.276e+01
## titleSuper Mario Kart Nintendo Wii Video Game Driving SMK	7.668e+00
## titleWii MARIO KART GAME PLUS 3 STEERING WHEELS! Wii	8.316e+00
## titleWii game Mario Kart in box with 1 wheel Fast Shipping	7.658e+00
## titleWii Mario Kart Game & Wheel In Original Box Tested WKIN	9.252e+00
## titleWii Mario Kart game + wheel: NIB, factory sealed	8.451e+00
## titleWii Mario Kart Great Condition!	NA
##	t value
## (Intercept)	6.251
## id	0.382
## duration	-1.554
## n_bids	-0.425
## condused	-0.719
## start_pr	0.128
## ship_pr	0.904
## ship_spmedia	0.214
## ship_spothe	-0.097
## ship_spparcel	1.895
## ship_sppriority	0.967
## ship_spstandard	1.469
## ship_spups3Day	-1.123
## ship_spupsGround	0.319
## seller_rate	-0.751
## stock_photoyes	-0.406
## wheels	3.258
## title NINTENDO Wii Mario Kart 2 wheels 1 reg & 1 sport NR E	-2.191
## title~~ Wii MARIO KART & WHEEL ~ NINTENDO Wii ~ BRAND NEW ~~	-1.070
## title10 Nintendo Wii Games - MarioKart Wii, SpiderMan 3, etc	7.769
## titleBrand New Mario Kart Wii Comes with Wheel. Free Ship	-1.877
## titleBRAND NEW NINTENDO 1 WII MARIO KART WITH 2 WHEELS +GAME	-0.118
## titleBRAND NEW NINTENDO MARIO KART WITH 2 WHEELS	-0.821
## titleBRAND NEW! FACTORY SEALED! MARIO KART WITH Wii WHEEL	-0.514
## titleMARIO KART - NINTENDO WII =====	-0.650
## titleMario Kart (Wii) with Wii Wheel	-1.852
## titleMario Kart & Wheel Nintendo Wii Game Free Priority Mail	-0.229
## titleMARIO KART for Nintendo Wii	-1.624
## titleMARIO KART FOR NINTENDO Wii WITH 2 WHEELS + GAME	-0.870

## titleMario Kart For Wii with 2-steering wheels NO RESERVE	-0.938
## titleMario Kart Nintendo Wii Game Complete & MINT !	-1.025
## titleMario Kart Wii	-1.946
## titleMario Kart Wii (GAME ONLY/NO WHEEL) - Nintendo Wii Game	0.634
## titleMario Kart Wii (Nintendo Wii) comes with 2 Wheels NEW!!	-2.028
## titleMario Kart Wii (Nintendo Wii) Complete, Mint!!	-1.721
## titleMario Kart Wii (Wii)	-2.103
## titleMario Kart Wii (Wii) - Complete! Perfect!	-1.343
## titleMario Kart Wii (Wii) *SEALED*	-0.368
## titleMario Kart Wii (Wii) - Brand New & Sealed!!	-1.571
## titleMario Kart Wii (Wii) - Comes with Wheel - Used	-1.582
## titleMario Kart Wii (Wii) - GAME ONLY	0.156
## titleMario Kart Wii (Wii) - NIB - Factory Sealed - NR	-1.209
## titleMario Kart Wii (Wii) + 4 nerf wheels	-1.063
## titleMario Kart Wii (Wii) COMPLETE	-0.186
## titleMario Kart Wii (Wii) game	-2.710
## titleMario Kart Wii (Wii) game and 2 wheels!	0.254
## titleMario Kart Wii (Wii) Game and Steering Wheel	-2.671
## titleMario Kart Wii (Wii) In Original Box With Wheel	-1.388
## titleMario Kart Wii (Wii) Includes Steering Wheel!	-1.079
## titleMario Kart Wii (Wii) Nintendo Wii game *--WOW --AWESOME	-2.323
## titleMario Kart Wii (Wii) USED ONLY ONCE! MINT CONDITION!	-0.908
## titleMario Kart Wii (Wii) Used Ships Free!	-0.631
## titleMario Kart Wii (Wii) w/ TWO OFFICIAL STEERING WHEELS	-0.281
## titleMario Kart Wii (Wii) w/ Wii Wheel	-1.851
## titleMario Kart Wii (Wii) w/2 Nintendo Wheels Excellent Cond	-0.352
## titleMario Kart Wii (Wii) W/RACING WHEEL!	-2.338
## titleMario Kart Wii (Wii) with 1 Wheel	-1.524
## titleMario Kart Wii + Wheel	-0.987
## titleMario Kart Wii Complete	-1.198
## titleMario Kart Wii Game with 1 Wheel - (Wii)	-0.416
## titleMario Kart Wii Good Condition (No Wii Wheel)	-1.715
## titleMario Kart Wii Nintendo Super	-1.850
## titleMario Kart Wii Nintendo Wii Game & Wheel	-2.548
## titleMario Kart Wii w/ wheel	-1.386
## titleMario Kart Wii WITH BONUS WHEEL!!!!	-0.881
## titleMario Kart Wii with Bonus Wheel!!! (2 Wheels Included)	-0.995
## titleMARIO KART WII WITH STEERING WHEEL NEW NINTENDO WII	-0.860
## titleMario Kart Wii with Wii Wheel	-2.015
## titleMario Kart Wii with Wii Wheel for Nintendo Wii FASTSHIP	-1.917
## titleMario Kart Wii, Game and Wheel, Brand New Sealed	-0.967
## titleMario Kart with 2 wheels by Wii	-2.075
## titleMARIO KART WITH WII OFFICIAL WHEEL+1 COBALT BLUE WHEEL	0.590
## titleMARIO KART WITH WII WHEEL+1 GT PRO PINK WII WHEEL BUNDL	0.617
## titleMarioKart (Wii) w/ wheel	-2.405
## titleMarioKart Mario Kart Nintendo Wii Rare great game race	-1.282
## titleMarioKart Wii	-1.823
## titleMariokart Wii Nintendo with wheel - Mario Kart Nintendo	-2.306
## titleNEW MARIO KART GAME+OFFICIAL WHITE+CRIMSON RED WHEELS!!	0.587
## titleNEW Mario Kart Nintendo Wii Racing Game w/Wheel Online	-1.127
## titleNEW MARIO KART WITH WII WHEEL+2 GT PRO WHITE WII WHEEL	0.694
## titleNew Nintendo Super Mario Kart Wii with Steering Wheel	-0.756
## titleNintedo Wii Console Bundle Guitar Hero 5 Mario Kart	20.171
## titleNINTENDO ~ MARIO KART Wii ~ NEW IN BOX ~ FACTORY SEALED	-1.446

```

## titleNintendo Wii : Mario Kart Wii w/ Wii Wheel (2008, MINT) -0.250
## titleNINTENDO WII MARIO KART GAME DISK WITH TWO (2) WHEELS -1.212
## titleNintendo Wii Mario Kart GAME ONLY -0.509
## titleNintendo Wii Mario Kart With 2 Racing Wheels -1.047
## titleNINTENDO WII MARIOKART (WHEEL AND GAME) -1.618
## titleNintendo Wii MarioKart and Steering Wheel -0.713
## titleNINTENDO WII SUPER Mario Kart GAME ONLY NO Wheel NEW * 0.730
## titleSuper Mario Kart Nintendo Wii Video Game Driving SMK -3.024
## titleWii MARIO KART GAME PLUS 3 STEERING WHEELS! Wii -0.366
## titleWii game Mario Kart in box with 1 wheel Fast Shipping -1.230
## titleWii Mario Kart Game & Wheel In Original Box Tested WKIN -1.412
## titleWii Mario Kart game + wheel: NIB, factory sealed -1.615
## titleWii Mario Kart Great Condition! NA
## Pr(>|t|)
## (Intercept) 1.12e-07 ***
## id 0.70407
## duration 0.12701
## n_bids 0.67287
## condused 0.47569
## start_pr 0.89895
## ship_pr 0.37041
## ship_spmedia 0.83167
## ship_spothor 0.92339
## ship_spparcel 0.06421 .
## ship_sppriority 0.33858
## ship_spstandard 0.14852
## ship_spups3Day 0.26714
## ship_spupsGround 0.75077
## seller_rate 0.45656
## stock_photoyes 0.68678
## wheels 0.00209 **
## title NINTENDO Wii Mario Kart 2 wheels 1 reg & 1 sport NR E 0.03346 *
## title~~ Wii MARIO KART & WHEEL ~ NINTENDO Wii ~ BRAND NEW ~~ 0.28997
## title10 Nintendo Wii Games - MarioKart Wii, SpiderMan 3, etc 5.65e-10 ***
## titleBrand New Mario Kart Wii Comes with Wheel. Free Ship 0.06678 .
## titleBRAND NEW NINTENDO 1 WII MARIO KART WITH 2 WHEELS +GAME 0.90629
## titleBRAND NEW NINTENDO MARIO KART WITH 2 WHEELS 0.41595
## titleBRAND NEW! FACTORY SEALED! MARIO KART WITH Wii WHEEL 0.60987
## titleMARIO KART - NINTENDO WII ===== 0.51867
## titleMario Kart (Wii) with Wii Wheel 0.07031 .
## titleMario Kart & Wheel Nintendo Wii Game Free Priority Mail 0.81953
## titleMARIO KART for Nintendo Wii 0.11109
## titleMARIO KART FOR NINTENDO Wii WITH 2 WHEELS + GAME 0.38880
## titleMario Kart For Wii with 2-steering wheels NO RESERVE 0.35297
## titleMario Kart Nintendo Wii Game Complete & MINT ! 0.31043
## titleMario Kart Wii 0.05763 .
## titleMario Kart Wii (GAME ONLY/NO WHEEL) - Nintendo Wii Game 0.52925
## titleMario Kart Wii (Nintendo Wii) comes with 2 Wheels NEW!! 0.04830 *
## titleMario Kart Wii (Nintendo Wii) Complete, Mint!! 0.09185 .
## titleMario Kart Wii (Wii) 0.04082 *
## titleMario Kart Wii (Wii) - Complete! Perfect! 0.18579
## titleMario Kart Wii (Wii) *SEALED* 0.71475
## titleMario Kart Wii (Wii) - Brand New & Sealed!! 0.12278
## titleMario Kart Wii (Wii) - Comes with Wheel - Used 0.12044

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## titleMario Kart Wii (Wii) - GAME ONLY	0.87662
## titleMario Kart Wii (Wii) - NIB - Factory Sealed - NR	0.23261
## titleMario Kart Wii (Wii) + 4 nerf wheels	0.29319
## titleMario Kart Wii (Wii) COMPLETE	0.85322
## titleMario Kart Wii (Wii) game	0.00935 **
## titleMario Kart Wii (Wii) game and 2 wheels!	0.80073
## titleMario Kart Wii (Wii) Game and Steering Wheel	0.01036 *
## titleMario Kart Wii (Wii) In Original Box With Wheel	0.17179
## titleMario Kart Wii (Wii) Includes Steering Wheel!	0.28617
## titleMario Kart Wii (Wii) Nintendo Wii game *--WOW --AWESOME	0.02455 *
## titleMario Kart Wii (Wii) USED ONLY ONCE! MINT CONDITION!	0.36835
## titleMario Kart Wii (Wii) Used Ships Free!	0.53083
## titleMario Kart Wii (Wii) w/ TWO OFFICIAL STEERING WHEELS	0.78000
## titleMario Kart Wii (Wii) w/ Wii Wheel	0.07048 .
## titleMario Kart Wii (Wii) w/2 Nintendo Wheels Excellent Cond	0.72638
## titleMario Kart Wii (Wii) W/RACING WHEEL!	0.02371 *
## titleMario Kart Wii (Wii) with 1 Wheel	0.13414
## titleMario Kart Wii + Wheel	0.32883
## titleMario Kart Wii Complete	0.23690
## titleMario Kart Wii Game with 1 Wheel - (Wii)	0.67917
## titleMario Kart Wii Good Condition (No Wii Wheel)	0.09299 .
## titleMario Kart Wii Nintendo Super	0.07061 .
## titleMario Kart Wii Nintendo Wii Game & Wheel	0.01417 *
## titleMario Kart Wii w/ wheel	0.17239
## titleMario Kart Wii WITH BONUS WHEEL!!!!	0.38265
## titleMario Kart Wii with Bonus Wheel!!! (2 Wheels Included)	0.32501
## titleMARIO KART WII WITH STEERING WHEEL NEW NINTENDO WII	0.39391
## titleMario Kart Wii with Wii Wheel	0.04969 *
## titleMario Kart Wii with Wii Wheel for Nintendo Wii FASTSHIP	0.06138 .
## titleMario Kart Wii, Game and Wheel, Brand New Sealed	0.33840
## titleMario Kart with 2 wheels by Wii	0.04349 *
## titleMARIO KART WITH WII OFFICIAL WHEEL+1 COBALT BLUE WHEEL	0.55807
## titleMARIO KART WITH WII WHEEL+1 GT PRO PINK WII WHEEL BUNDL	0.54040
## titleMarioKart (Wii) w/ wheel	0.02015 *
## titleMarioKart Mario Kart Nintendo Wii Rare great game race	0.20596
## titleMarioKart Wii	0.07460 .
## titleMarioKart Wii Nintendo with wheel - Mario Kart Nintendo	0.02557 *
## titleNEW MARIO KART GAME+OFFICIAL WHITE+CRIMSON RED WHEELS!!	0.55974
## titleNEW Mario Kart Nintendo Wii Racing Game w/Wheel Online	0.26550
## titleNEW MARIO KART WITH WII WHEEL+2 GT PRO WHITE WII WHEEL	0.49120
## titleNew Nintendo Super Mario Kart Wii with Steering Wheel	0.45322
## titleNintedo Wii Console Bundle Guitar Hero 5 Mario Kart	< 2e-16 ***
## titleNINTENDO ~ MARIO KART Wii ~ NEW IN BOX ~ FACTORY SEALED	0.15487
## titleNintendo Wii : Mario Kart Wii w/ Wii Wheel (2008, MINT)	0.80354
## titleNINTENDO WII MARIO KART GAME DISK WITH TWO (2) WHEELS	0.23155
## titleNintendo Wii Mario Kart GAME ONLY	0.61345
## titleNintendo Wii Mario Kart With 2 Racing Wheels	0.30068
## titleNINTENDO WII MARIOKART (WHEEL AND GAME)	0.11239
## titleNintendo Wii MarioKart and Steering Wheel	0.47952
## titleNINTENDO WII SUPER Mario Kart GAME ONLY NO Wheel NEW *	0.46931
## titleSuper Mario Kart Nintendo Wii Video Game Driving SMK	0.00404 **
## titleWii MARIO KART GAME PLUS 3 STEERING WHEELS! Wii	0.71599
## titleWii game Mario Kart in box with 1 wheel Fast Shipping	0.22496
## titleWii Mario Kart Game & Wheel In Original Box Tested WKIN	0.16468

```
## titleWii Mario Kart game + wheel: NIB, factory sealed      0.11302
## titleWii Mario Kart Great Condition!                        NA
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.737 on 47 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.993, Adjusted R-squared:  0.979
## F-statistic: 70.9 on 94 and 47 DF, p-value: < 2.2e-16
```

Throwing the kitchen sink at the model we see the only variables that are statistically significant are within Title variable, other than that it appears no other variables have an impact on price. Before fitting the model I did exclude title