## Assignment 2

## Nesta Ndungu

```
rm(list=ls())
  library(tidyverse)
-- Attaching packages ------ tidyverse 1.3.2 --
v ggplot2 3.4.0 v purrr 1.0.1
v tibble 3.1.8 v dplyr 1.1.0
v tidyr 1.3.0 v stringr 1.5.0
v readr 2.1.3
              v forcats 1.0.0
-- Conflicts -----
                                ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag() masks stats::lag()
  library(rvest)
Attaching package: 'rvest'
The following object is masked from 'package:readr':
   guess_encoding
  # Scraping the html code from the page source.
  motor <- minimal_html('<table class="" style="">
   <thead>
```

```
Modell (temp. varierte fra 0° til -10°)
```

## 

Mercedes-Benz EQS 580 4matic645 km/18,3 kWh513 km BMW iX xDrive50591 km/21,4 kWh503 km-14,89 % Volkswagen ID.3 PRO S539 km/16,3 kWh435 km-19,29 Kia EV6 2WD528 km/16,5 kWh429 km-18,75 % NIO ES8 LR 7-seter488 km/21,5 kWh425 km-12,91 % Kia EV6 4WD484 km/18,0 kWh423 km-12,60 % Volkswagen ID.4 Pro485 km/18,4 kWh414 km-14,64 % Hyundai Ioniq 5 2WD481 km&#x2F;16,8 kWh408 km-15,18 % BMW i4 M50497 km/19,0 kWh406 km-18,31 % Skoda Enyaq iV80X477 km/18,2 kWh403 km-15,51 % Porsche Taycan 4 Cross Turismo456 km/22,4 kWh402 km Polestar 2 LR Single motor517 km/18,6 kWh400 km-td>< Audi e-tron GT463 km/21,1 kWh392 km-15,33 % Xpeng P7470 km/19,4 kWh383 km-18,51 % Audi e-tron Q4 40485 km/18,6 kWh380 km-21,65 % Hyundai Ioniq 5 4WD (19-tommer)460 km/17,7 kWh369 km BYD Tang400 km/21,6 kWh356 km-11,00 % Volkswagen ID.4 GTX466 km/18,6 kWh353 km-24,20 % Audi e-tron Q4 50 quattro459 km/19,1 kWh349 km-2 Skoda Enyaq iV80509 km/17,7 kWh347 km-31,83 %</t Tesla Model 3 SR448 km/14,0 kWh346 km-22,87 % Polestar 2 LR Dual motor476 km/20,2 kWh340 km-28 Polestar 2 LR Dual motor (m bagasje)470 km/19,5 kWhx

```
Cupra Born395 km/15,4 kWh339 km-14,18 %
 Volvo C40 Recharge437 km/21,1 kWh333 km-23,80 %
 Mercedes-Benz EQA 250</pd>401 km&#x2F;17,7 kWh</pd>331 km</pd>-17,46
 BMW iX xDrive40402 km/20,7 kWh316 km-21,39 %
 Mercedes-Benz EQB 350 4matic407 km/18,1 kWh315 km
 Opel Mokka-e338 km/16,2 kWh263 km-22,19 %</
 Peugeot e-2008320 km/15,6 kWh228 km-28,75 %
 ')
# Making the dataframe.
df_motor <- motor %>%
 html_element("table") %>%
 html_table()
# Renaming the columns.
df_motor <- rename(df_motor, Modell = "X1", WLTP_tall = "X2", STOPP = "X3", Avvik = "X4")</pre>
# Removing the first row.
df_motor <- df_motor[-1,]</pre>
# Removing characters that are unnecessary.
df_motor$WLTP_tall <- substr(df_motor$WLTP_tall,1,nchar(df_motor$WLTP_tall)-12)</pre>
df_motor$STOPP <- substr(df_motor$STOPP,1,nchar(df_motor$STOPP)-3)</pre>
# Making the values in the columns as numeric.
df_motor$WLTP_tall <- as.numeric(as.character(df_motor$WLTP_tall))</pre>
df_motor$STOPP <- as.numeric(as.character(df_motor$STOPP))</pre>
# Making the plot.
# Found the code for the diagonal line at: https://statisticsglobe.com/add-diagonal-line-p
df_motor %>%
```

```
ggplot() +
geom_point(aes(x = WLTP_tall, y = STOPP)) +
geom_abline(intercept = 0, slope = 1) +
labs (title = "WLTP test of electric cars", y = "STOPP", x = "WLTP") +
theme_bw()
```

Warning: Removed 2 rows containing missing values (`geom\_point()`).



