SOK-1005-Assignment2

30 - Casper Andresen

```
library(tidyverse)
```

```
-- Attaching packages --------------------------------------- tidyverse 1.3.2 --
v ggplot2 3.4.0      v purrr   0.3.4
v tibble  3.1.8      v dplyr   1.0.10
v tidyr   1.2.1      v stringr 1.4.1
v readr   2.1.2      v forcats 0.5.2
```

```
Warning: package 'ggplot2' was built under R version 4.2.2
```

```
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
```

```
url <- "https://www.motor.no/aktuelt/motors-store-vintertest-av-rekkevidde-pa-elbiler/2171

df_motor <- rvest::read_html(url) %>%
  rvest::html_table(header = TRUE)

df_motor <- df_motor[[1]]
```

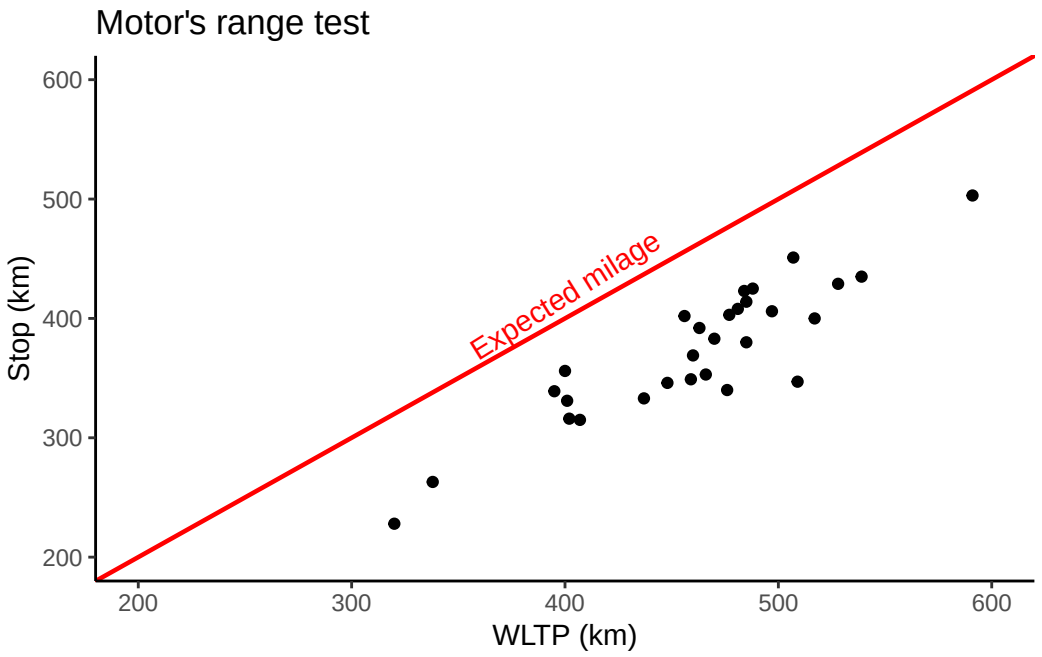
```
df_motor$`WLTP-tall` <- gsub(" .*", "", df_motor$`WLTP-tall`)
df_motor$`STOPP` <- gsub(" .*", "", df_motor$`STOPP`)

df_motor$`WLTP-tall` <- as.numeric(df_motor$`WLTP-tall`)
df_motor$`STOPP` <- as.numeric(df_motor$`STOPP`)
```

```
Warning: NAs introduced by coercion
```

```r
df_motor <- df_motor %>%
  rename("WLTP" = "WLTP-tall") %>%
  rename("stop" = "STOPP")
```

```r
df_motor %>%
  ggplot(aes(x=WLTP, y=stop)) +
  geom_point() +
  scale_y_continuous(limits = c(200,600)) +
  scale_x_continuous(limits = c(200,600)) +
  labs(y = "Stop (km)", x = "WLTP (km)", title = "Motor's range test") +
  geom_abline(color = "red", linewidth = .8) +
  annotate("text", x = 400, y = 420, label = "Expected milage", angle = 32, color = "red") +
  theme_classic()
```

```
Warning: Removed 4 rows containing missing values (`geom_point()`).
```




```r
lm(stop ~ WLTP, data = df_motor)
```

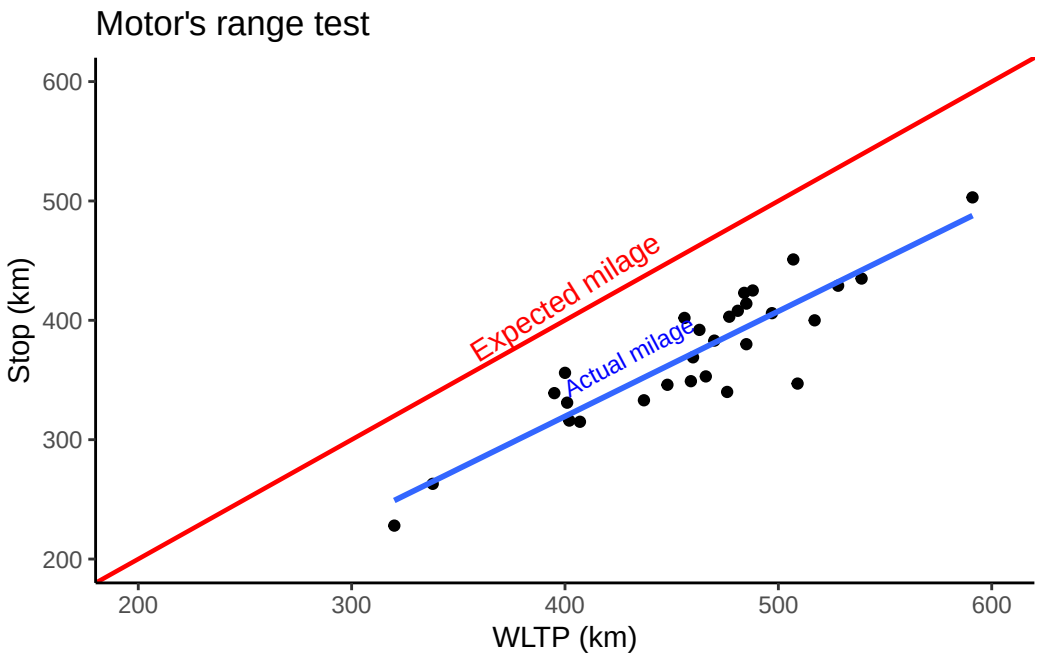
```
Call:
lm(formula = stop ~ WLTP, data = df_motor)

Coefficients:
(Intercept)         WLTP
   -26.6450       0.8671
```

```
df_motor %>%
  ggplot(aes(x=WLTP, y=stop)) +
  geom_point() +
  scale_y_continuous(limits = c(200,600)) +
  scale_x_continuous(limits = c(200,600)) +
  labs(y = "Stop (km)", x = "WLTP (km)", title = "Motor's range test") +
  geom_abline(color = "red", linewidth = .8) +
  annotate("text", x = 400, y = 420, label = "Expected milage", angle = 32, color = "red")
  annotate("text", x = 430, y = 370, label = "Actual milage", angle = 28, color = "blue",
  geom_smooth(method=lm, se = FALSE) +
  theme_classic()
```

```
`geom_smooth()` using formula = 'y ~ x'
```

```
Warning: Removed 4 rows containing non-finite values (`stat_smooth()`).
```

```
Warning: Removed 4 rows containing missing values (`geom_point()`).
```


Motor's range test
Stop (km)
WLTP (km)
600
500
400
300
200
200
300
400
500
600
Expected milage
Actual milage