Untitled

2024-11-21

1.) (Use R) A starwars is a tibble in dplyr containing 14 variables about the features of 14 characters in the movie.

```
invisible(library(dplyr))
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
invisible(data(starwars))
invisible(glimpse(starwars))
```

```
## Rows: 87
## Columns: 14
## $ name       <chr> "Luke Skywalker", "C-3PO", "R2-D2", "Darth Vader", "Leia Or~
## $ height     <int> 172, 167, 96, 202, 150, 178, 165, 97, 183, 182, 188, 180, 2~
## $ mass       <dbl> 77.0, 75.0, 32.0, 136.0, 49.0, 120.0, 75.0, 32.0, 84.0, 77.~
## $ hair_color <chr> "blond", NA, NA, "none", "brown", "brown, grey", "brown", N~
## $ skin_color <chr> "fair", "gold", "white, blue", "white", "light", "light", "~
## $ eye_color  <chr> "blue", "yellow", "red", "yellow", "brown", "blue", "blue",~
## $ birth_year <dbl> 19.0, 112.0, 33.0, 41.9, 19.0, 52.0, 47.0, NA, 24.0, 57.0, ~
## $ sex        <chr> "male", "none", "none", "male", "female", "male", "female",~
## $ gender     <chr> "masculine", "masculine", "masculine", "masculine", "femini~
## $ homeworld  <chr> "Tatooine", "Tatooine", "Naboo", "Tatooine", "Alderaan", "T~
## $ species    <chr> "Human", "Droid", "Droid", "Human", "Human", "Human", "Huma~
## $ films      <list> <"A New Hope", "The Empire Strikes Back", "Return of the J~
## $ vehicles   <list> <"Snowspeeder", "Imperial Speeder Bike">, <>, <>, <>, "Imp~
## $ starships  <list> <"X-wing", "Imperial shuttle">, <>, <>, "TIE Advanced x1",~
```

a. How many humans are contained in starwars overall? (Hint. use count())

```
count(filter(starwars, species == "Human"))
```

```
## # A tibble: 1 x 1
##       n
##   <int>
## 1    35
```

b. How many feminine humans are contained in starwars?

```
count(filter(starwars, species == "Human" & gender == "feminine"))
```

```
## # A tibble: 1 x 1
```

```
##       n
##   <int>
## 1     9
```

c. From which homeworld do the most individuals come from?

```
starwars %>%
group_by(homeworld) %>%
summarize(homeworld_count = n()) %>%
filter(homeworld_count == max(homeworld_count))
```

```
## # A tibble: 1 x 2
##   homeworld homeworld_count
##   <chr>               <int>
## 1 Naboo                  11
```

d. What is the mean height of all individuals with orange eyes from the most popular homeworld?

```
starwars %>%
filter(eye_color == "orange" & homeworld == "Naboo") %>%
summarise(mean_height = mean(height))
```

```
## # A tibble: 1 x 1
##   mean_height
##         <dbl>
## 1        209.
```