Session 3 - Data Frames

R: the two "**rectangular**" data types in R are the **matrix** and the **data frame**. What is the most important difference between the two?

R: suppose you have four vectors `name`, `age`, `height`, and `weight`:

```
name <- c("Bill", "Gina", "Kelly", "Sean")
age <- c(25, 28, 26, 30)
height <- c(181, 160, 171, 168)
weight <- c(105, 60, 75, 80)
```

combine these vectors into a data frame called `patients`.

R: suppose you have a data frame `patients` with columns representing the patient name, age, height, and weight, but the data frame does not have column names.

Supply the following column names to `patients`: `"name"`, `"age"`, `"height"`, and `"weight"`.

R: suppose you have a data frame `patients`. Find the number of rows of `patients`.

R: suppose you have a data frame `patients`. Find the number of columns of `patients`.

R: suppose you have a data frame `patients`. Display the top few rows of `patients`.

R: suppose you have a data frame `patients`. Which command displays a concise statistical summary of each variable (e.g., minimum, quartiles, maximum, median, and mean)?

R: suppose you have a data frame `patients`. Which command displays a concise summary of the structure of the table (number and names of variables, number of observations)?

R: suppose you have a data frame `patients`. Retrieve the value stored in the 1st row of the 2nd column of `patients`.

R: suppose you have a data frame `patients`. Retrieve the values in the 3rd row of `patients`.

R: suppose you have a data frame `patients`. Retrieve the values in rows 2 through 4.

R: suppose you have a data frame `patients`. Retrieve the values in the 1st and 3rd rows of `patients`.

R: suppose you have a data frame `patients` with the following contents:

	name	age	height	weight
1	Bill	25	181	105
2	Gina	28	160	60
3	Kelly	26	171	75
4	Sean	38	168	80

Extract a vector containing the `age`s of each patient and store it in the variable `my_ages`.