

Week 1 Assignment

MATH 511

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1. Reading data file “ages-salaries.csv” into R and displaying data. The data is assigned to the data frame `df1`.

```
> df1<-read.csv("ages-salaries.csv")
> df1
```

```
name age salary
1    Alice  25  35000
2     Bob   30  65000
3    Carol  28  70000
4   Daniel  32  15000
5     Eve   42  43013
6    Fred   51  51777
7    Gail   31 100000
8    Harry  57  99999
9   Ileana  42  30001
10    John  40  45710
11   Kayla  27  54069
12    Lyle  57 303303
13    Maria 37  57634
14     Ned  45  45455
15    Olga  33  44449
16   Pedro  65 203315
17    Qing  31  87312
18  Robert  51  98765
19 Samantha 30  32567
20     Tom   70  42153
21  Ursula  55  77845
22  Victor  25  30000
23   Wanda  24  31000
24  Xavier  39  39000
25     Yun  35  50000
26    Zack  47  70000
```

2. Determine the number of observations in the dataset.

```
> str(df1)

'data.frame':   26 obs. of  3 variables:
 $ name  : Factor w/ 26 levels "Alice","Bob",...: 1 2 3 4 5 6 7 8 9 10 ...
 $ age   : int  25 30 28 32 42 51 31 57 42 40 ...
 $ salary: int  35000 65000 70000 15000 43013 51777 100000 99999 30001 45710 ...
```

There are 26 observations in the dataset. An observation contains data of 3 variable types: name, age and salary. The variables age and salary are of `int` type.

3. Compute average age and average salary.

```
> mean(df1$age)
[1] 40.34615
```

The average age is about 40 years.

```
> mean(df1$salary)
[1] 70091.04
```

The average salary is about 70091\$.

3. Compute standard deviation of age and salary.

```
> sd(df1$age)
[1] 12.92731
```

The sample standard deviation is about 12.93 years.

```
> sd(df1$salary)
[1] 60344.87
```

The sample standard deviation is about 60344.87 \$.