Arithematic

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November 16, 2017

Abstract

This artice is created using Swever in R Studio

1 Addition

Addition in R is done with + sign. Firstly lets strore some values into variables.

```
x<-4
y<-5

x+y

## [1] 9
```

2 Substraction

Substraction is done using - sign. Here is an example

```
x<-4
y<-5

x-y

## [1] -1
```

3 Multiplication

Multiplication is done with help of *(astrisk) sign.

```r
x<-4
y<-5

x*y

## [1] 20
```

4 Division

Division is done using / to get the quotient.
normal division

```r
x<-4
y<-5

x/y

## [1] 0.8
```

5 Plotting

Now lets try to plot something

```r
z<-seq(1,10,.1)
```

This generate a sequence of numbers with intervel of 0.1 from 1 to 10.

```r
z

##  [1]  1.0  1.1  1.2  1.3  1.4  1.5  1.6  1.7  1.8  1.9  2.0  2.1  2.2  2.3
## [15]  2.4  2.5  2.6  2.7  2.8  2.9  3.0  3.1  3.2  3.3  3.4  3.5  3.6  3.7
## [29]  3.8  3.9  4.0  4.1  4.2  4.3  4.4  4.5  4.6  4.7  4.8  4.9  5.0  5.1
## [43]  5.2  5.3  5.4  5.5  5.6  5.7  5.8  5.9  6.0  6.1  6.2  6.3  6.4  6.5
## [57]  6.6  6.7  6.8  6.9  7.0  7.1  7.2  7.3  7.4  7.5  7.6  7.7  7.8  7.9
## [71]  8.0  8.1  8.2  8.3  8.4  8.5  8.6  8.7  8.8  8.9  9.0  9.1  9.2  9.3
## [85]  9.4  9.5  9.6  9.7  9.8  9.9 10.0
```

Lets add more code:

```r
y<-z^2
```

This will square all the values of z.

```
z
```

```
##  [1]  1.0  1.1  1.2  1.3  1.4  1.5  1.6  1.7  1.8  1.9  2.0  2.1  2.2  2.3
## [15]  2.4  2.5  2.6  2.7  2.8  2.9  3.0  3.1  3.2  3.3  3.4  3.5  3.6  3.7
## [29]  3.8  3.9  4.0  4.1  4.2  4.3  4.4  4.5  4.6  4.7  4.8  4.9  5.0  5.1
## [43]  5.2  5.3  5.4  5.5  5.6  5.7  5.8  5.9  6.0  6.1  6.2  6.3  6.4  6.5
## [57]  6.6  6.7  6.8  6.9  7.0  7.1  7.2  7.3  7.4  7.5  7.6  7.7  7.8  7.9
## [71]  8.0  8.1  8.2  8.3  8.4  8.5  8.6  8.7  8.8  8.9  9.0  9.1  9.2  9.3
## [85]  9.4  9.5  9.6  9.7  9.8  9.9 10.0
```

We can also add dataframe

```
df<-data.frame(z,y)
df
```

```
##       z      y
## 1   1.0   1.00
## 2   1.1   1.21
## 3   1.2   1.44
## 4   1.3   1.69
## 5   1.4   1.96
## 6   1.5   2.25
## 7   1.6   2.56
## 8   1.7   2.89
## 9   1.8   3.24
## 10  1.9   3.61
## 11  2.0   4.00
## 12  2.1   4.41
## 13  2.2   4.84
## 14  2.3   5.29
## 15  2.4   5.76
## 16  2.5   6.25
## 17  2.6   6.76
## 18  2.7   7.29
## 19  2.8   7.84
## 20  2.9   8.41
## 21  3.0   9.00
## 22  3.1   9.61
## 23  3.2  10.24
## 24  3.3  10.89
## 25  3.4  11.56
## 26  3.5  12.25
## 27  3.6  12.96
## 28  3.7  13.69
## 29  3.8  14.44
## 30  3.9  15.21
```

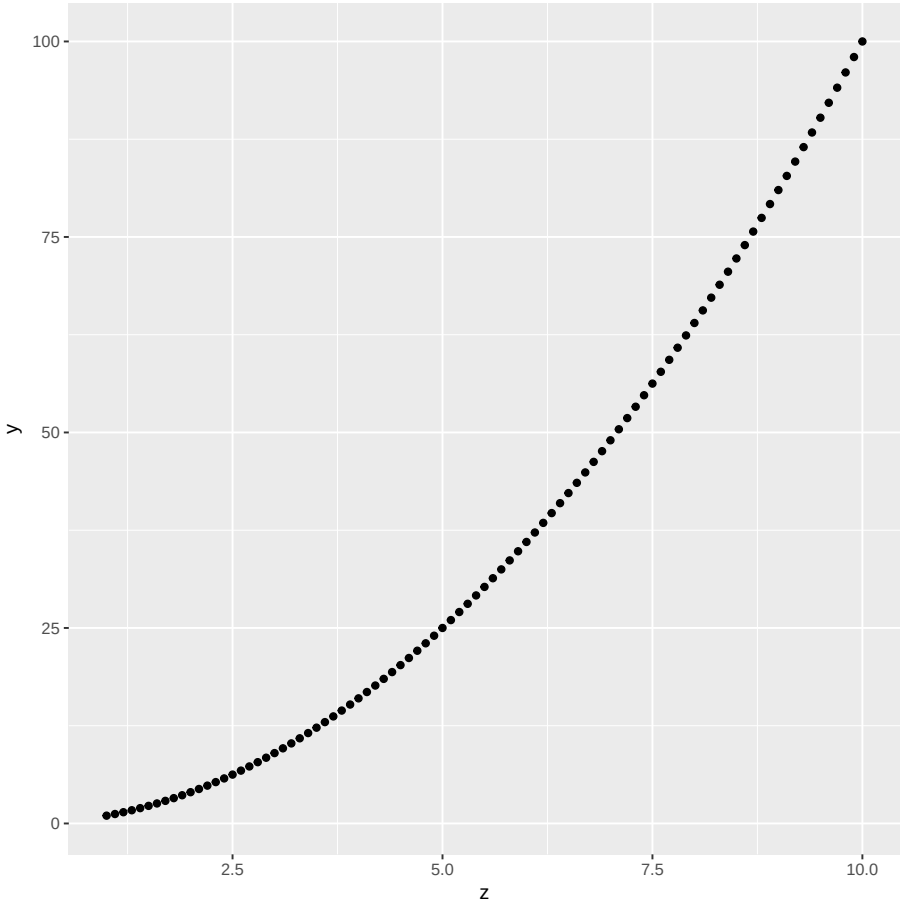
```
## 31  4.0  16.00
## 32  4.1  16.81
## 33  4.2  17.64
## 34  4.3  18.49
## 35  4.4  19.36
## 36  4.5  20.25
## 37  4.6  21.16
## 38  4.7  22.09
## 39  4.8  23.04
## 40  4.9  24.01
## 41  5.0  25.00
## 42  5.1  26.01
## 43  5.2  27.04
## 44  5.3  28.09
## 45  5.4  29.16
## 46  5.5  30.25
## 47  5.6  31.36
## 48  5.7  32.49
## 49  5.8  33.64
## 50  5.9  34.81
## 51  6.0  36.00
## 52  6.1  37.21
## 53  6.2  38.44
## 54  6.3  39.69
## 55  6.4  40.96
## 56  6.5  42.25
## 57  6.6  43.56
## 58  6.7  44.89
## 59  6.8  46.24
## 60  6.9  47.61
## 61  7.0  49.00
## 62  7.1  50.41
## 63  7.2  51.84
## 64  7.3  53.29
## 65  7.4  54.76
## 66  7.5  56.25
## 67  7.6  57.76
## 68  7.7  59.29
## 69  7.8  60.84
## 70  7.9  62.41
## 71  8.0  64.00
## 72  8.1  65.61
## 73  8.2  67.24
## 74  8.3  68.89
## 75  8.4  70.56
```

```
## 76  8.5  72.25
## 77  8.6  73.96
## 78  8.7  75.69
## 79  8.8  77.44
## 80  8.9  79.21
## 81  9.0  81.00
## 82  9.1  82.81
## 83  9.2  84.64
## 84  9.3  86.49
## 85  9.4  88.36
## 86  9.5  90.25
## 87  9.6  92.16
## 88  9.7  94.09
## 89  9.8  96.04
## 90  9.9  98.01
## 91 10.0 100.00
```

Finally we can use ggplot to a plot. dont forget to add library.[1]

```
library(ggplot2)
ggplot()+
  geom_point(data=df,aes(x=z,y=y))
```

[1] This is the tricky part


100
75
50
25
0
y
2.5
5.0
7.5
10.0
z