Homework #2.

February 19, 2019

```
In [1]: a = 22

In [2]: a

Out[2]: 22

In [ ]: ### This is the Python Code

In [3]: L = [11,22,3.14,'Text']

In [4]: L

Out[4]: [11, 22, 3.14, 'Text']

In [5]: ### This is R Code

In [6]: x <- c(11,22,33)


        ---------------------------------------------------------------------------

        NameError                                 Traceback (most recent call last)

        <ipython-input-6-373de84e30d7> in <module>
    ----> 1 x <- c(11,22,33)


        NameError: name 'x' is not defined


In [1]: x


        Error in eval(expr, envir, enclos): object 'x' not found
    Traceback:



In [2]: x
```

```
    Error in eval(expr, envir, enclos): object 'x' not found
Traceback:
```

```
In [3]: x <- c(11,22,33)
```

```
In [4]: x
```

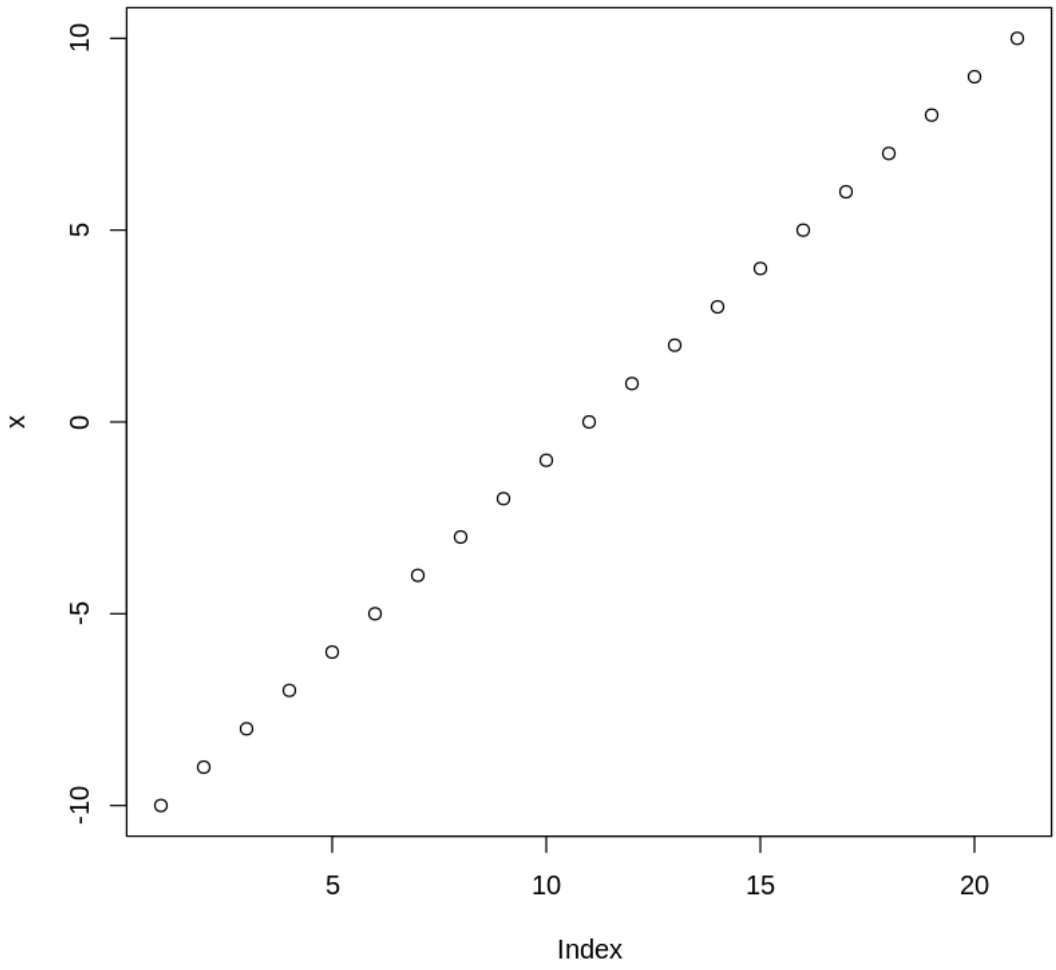
1. 11 2. 22 3. 33

```
In [5]: x <- c(-10:10)
```

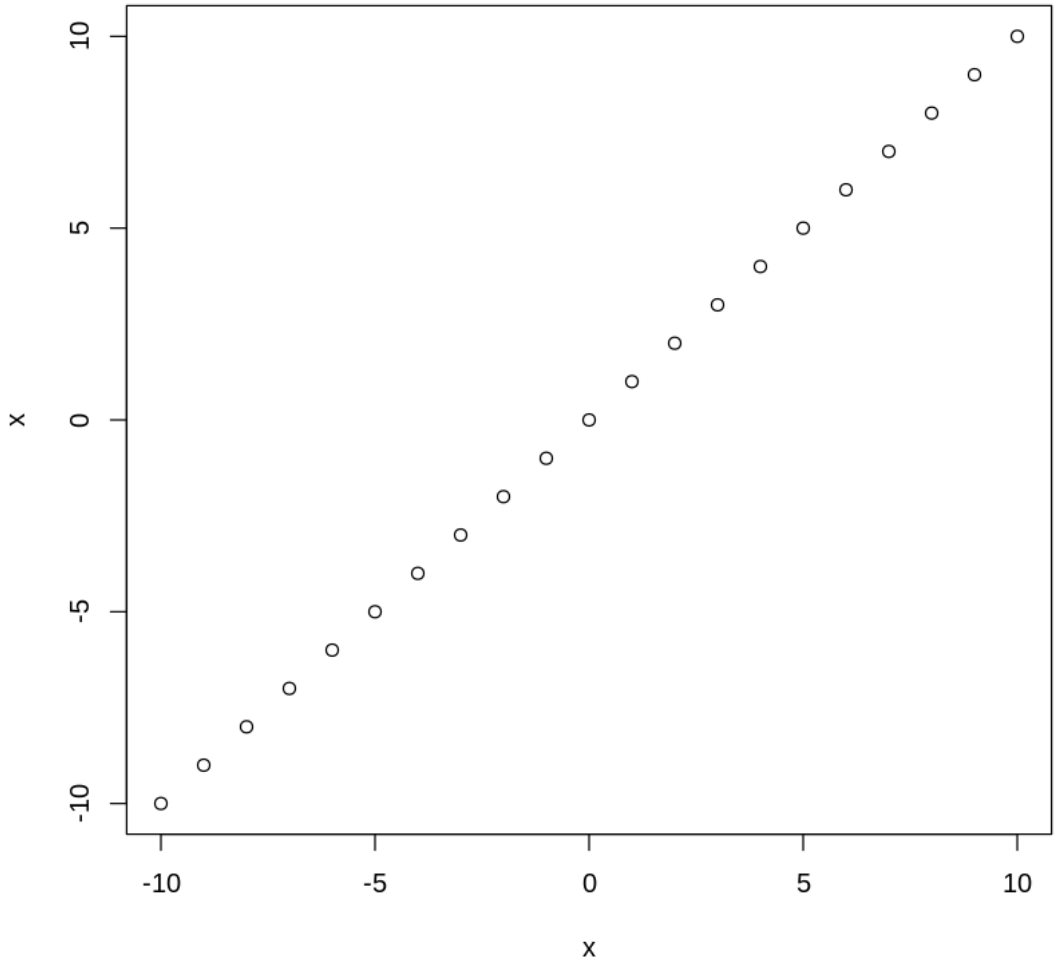
```
In [6]: x
```

1. -10 2. -9 3. -8 4. -7 5. -6 6. -5 7. -4 8. -3 9. -2 10. -1 11. 0 12. 1 13. 2 14. 3 15. 4 16. 5 17. 6 18. 7 19. 8 20. 9 21. 10

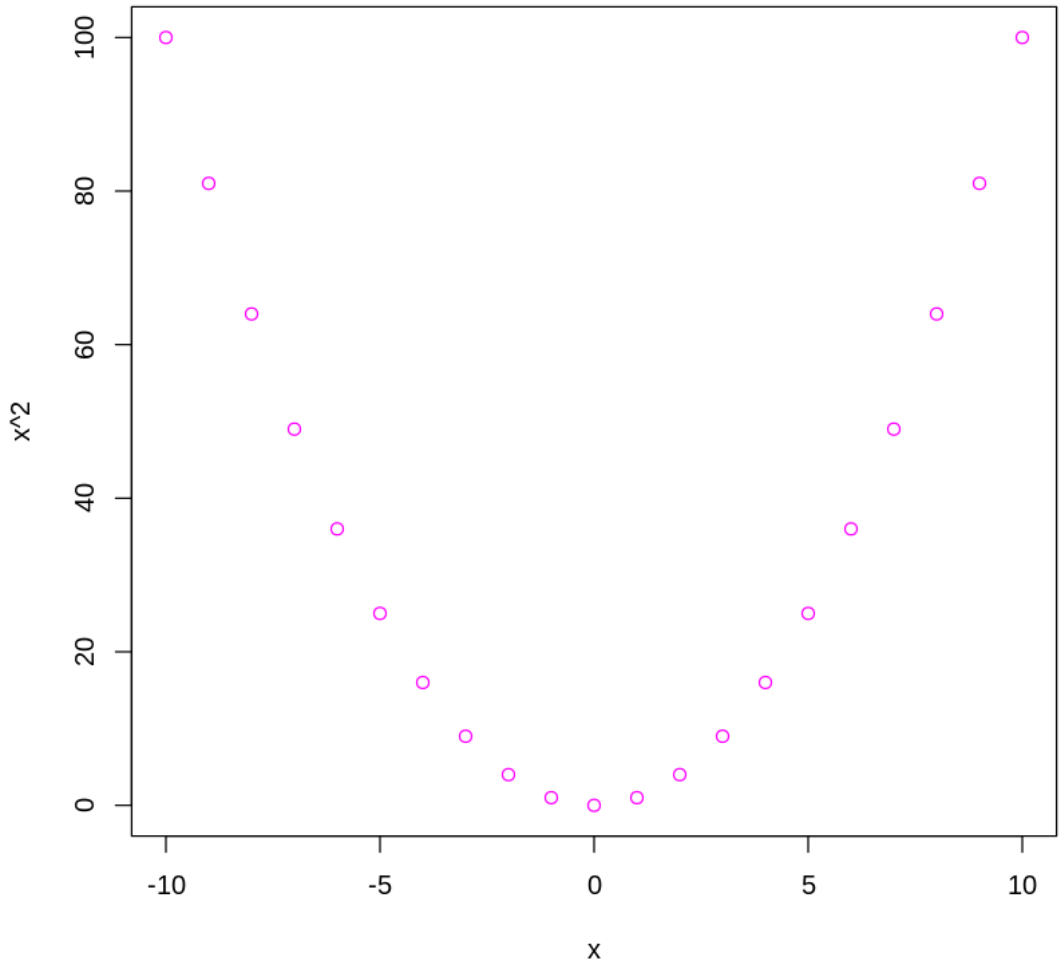
```
In [7]: plot(x)
```



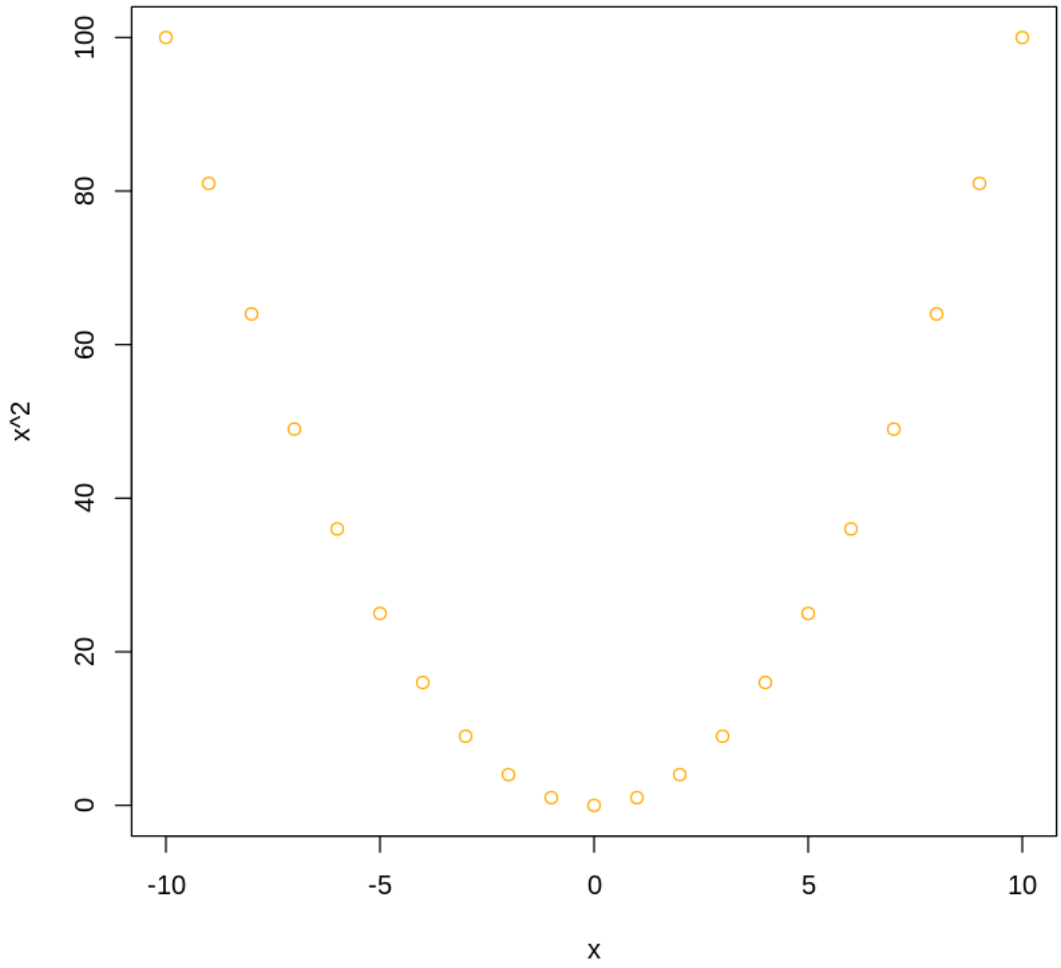
In [8]:
```
plot (x,x)
```



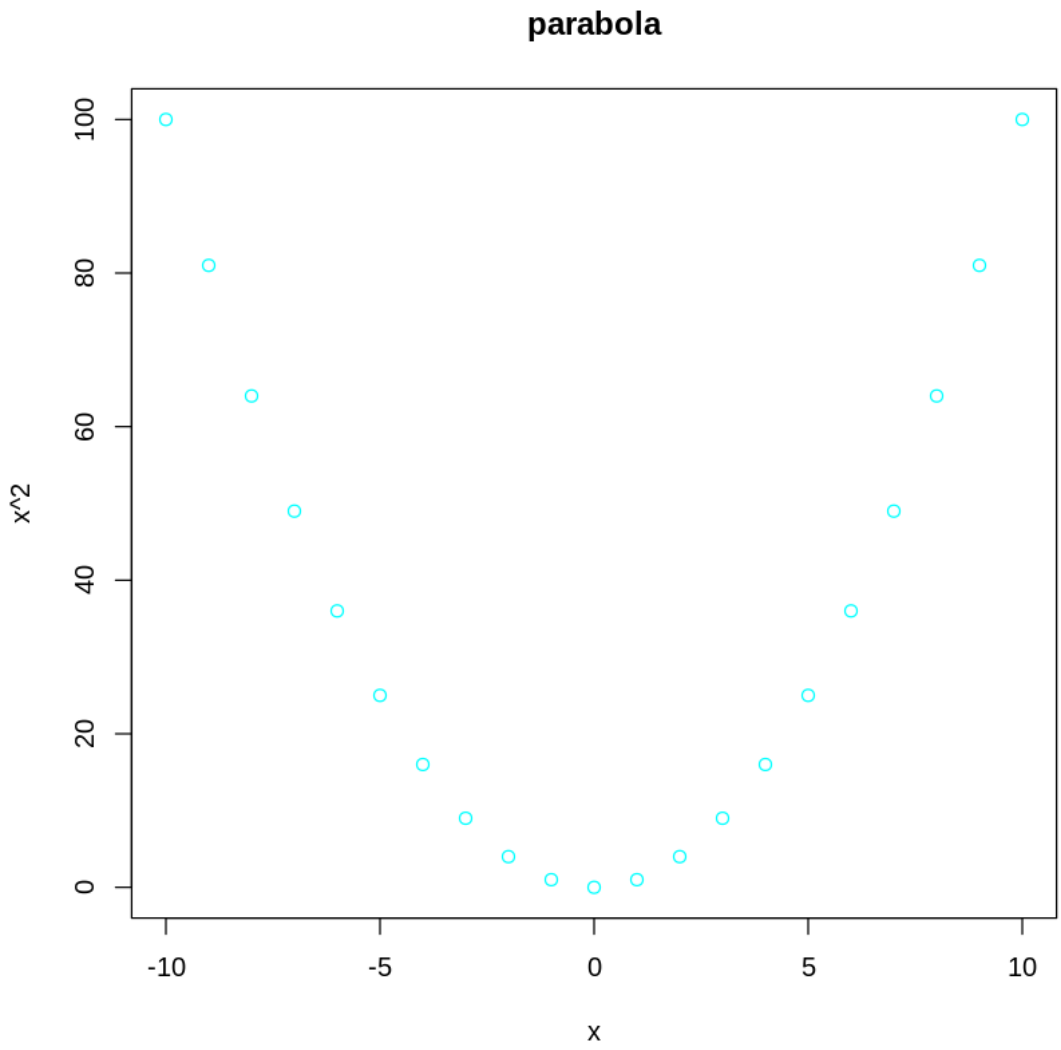
In [10]:
```
plot(x,x^2, col = "magenta")
```



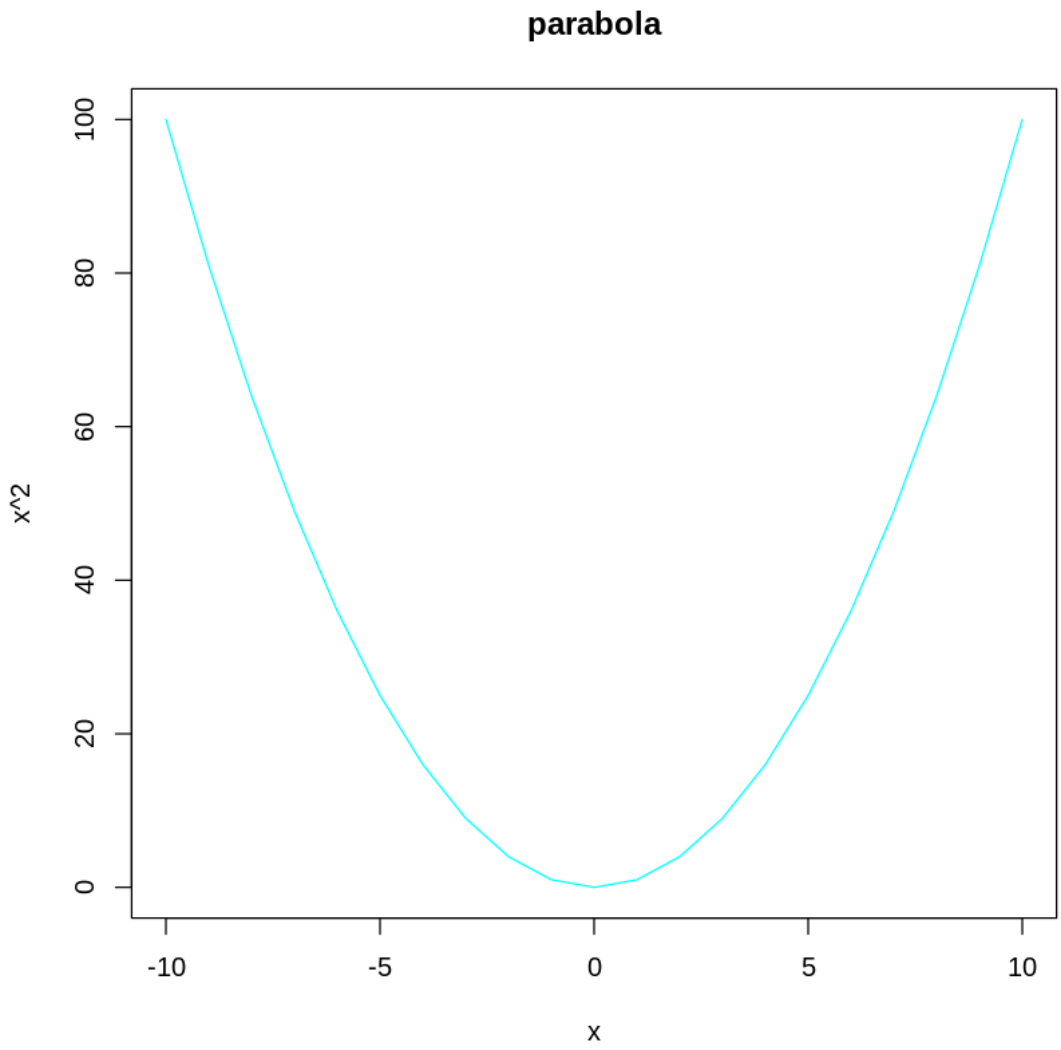

```
In [11]: plot(x,x^2, col = "#ffaa00")
```



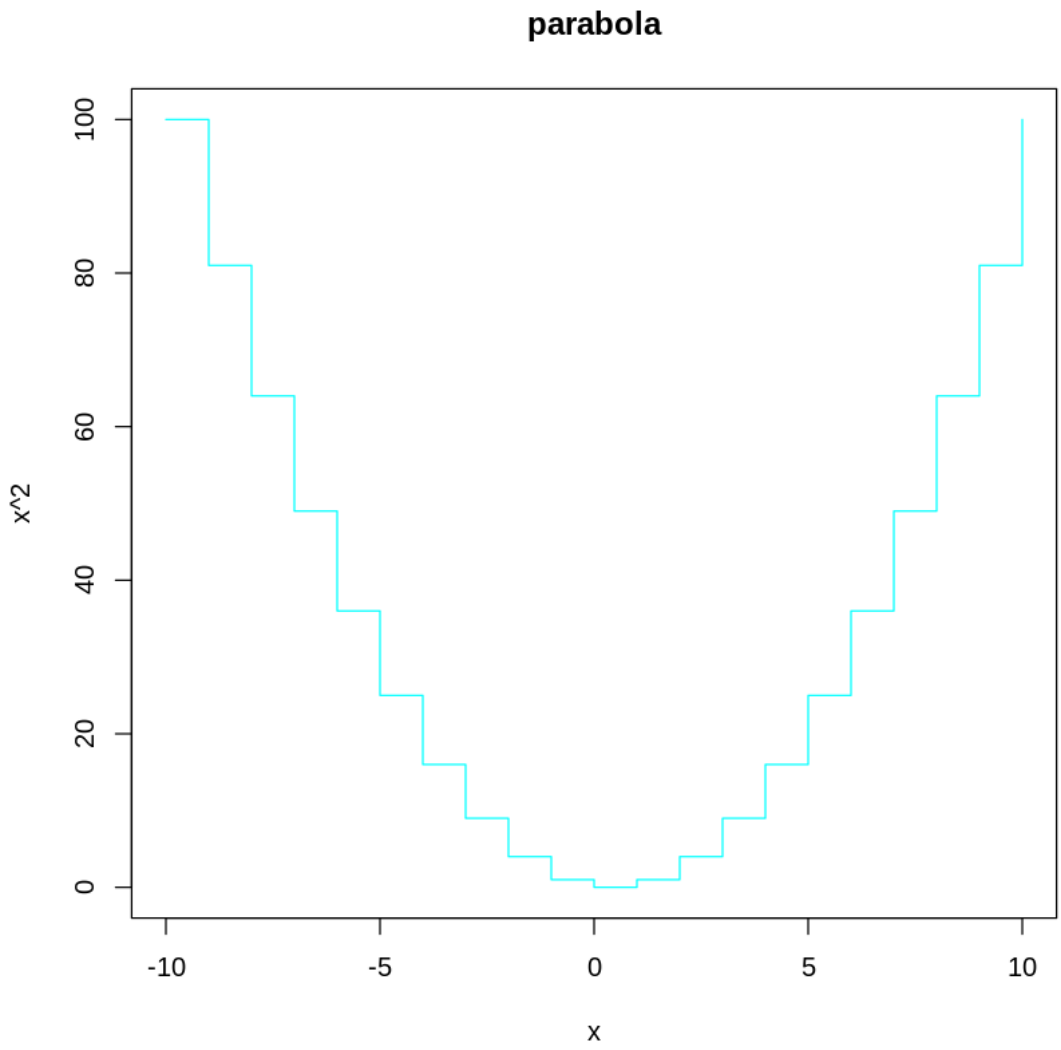

```
In [12]: plot (x, x^2, col = "334477", main = "parabola")
```



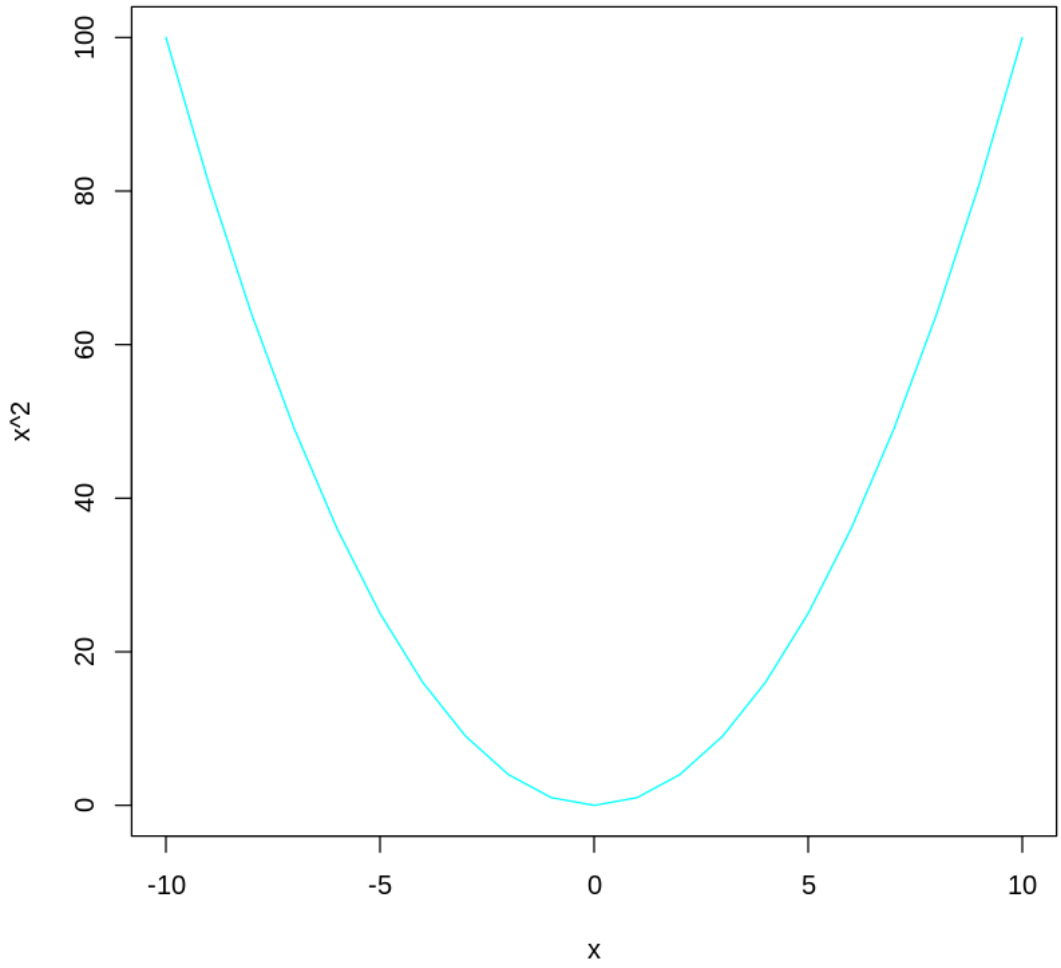

```
In [13]: plot (x, x^2, "l", main = "parabola", col = "334477", )
```



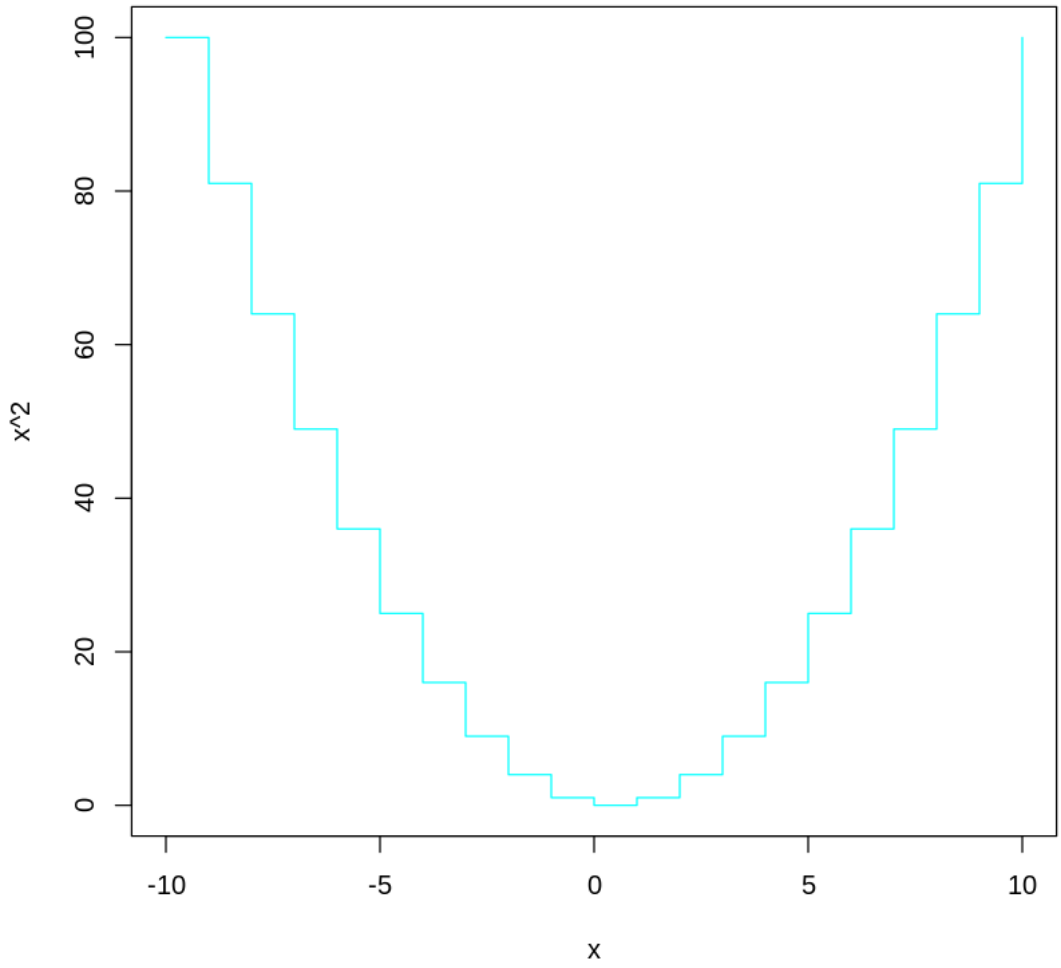

```
In [14]: plot (x, x^2, "s", main = "parabola", col = "334477", )
```



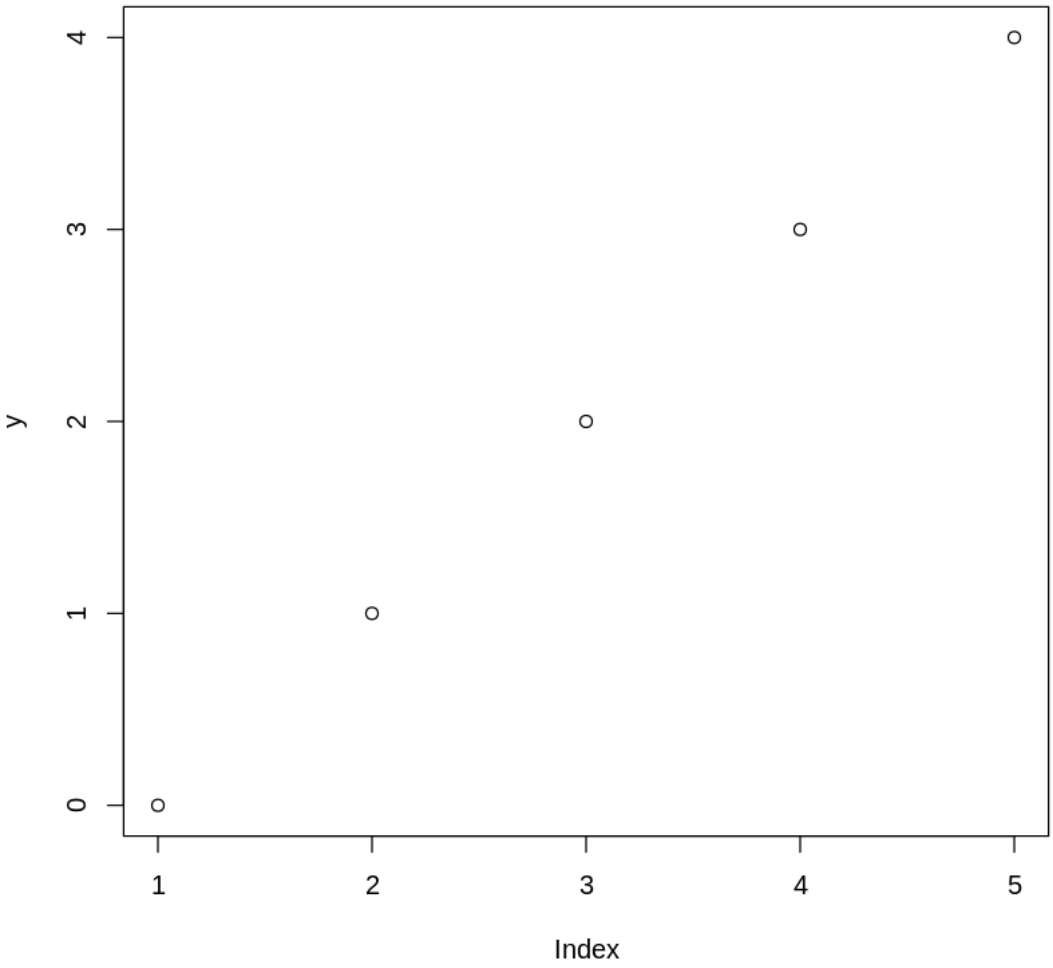

```
In [15]: plot (x, x^2, "l", col = "334477", )
```



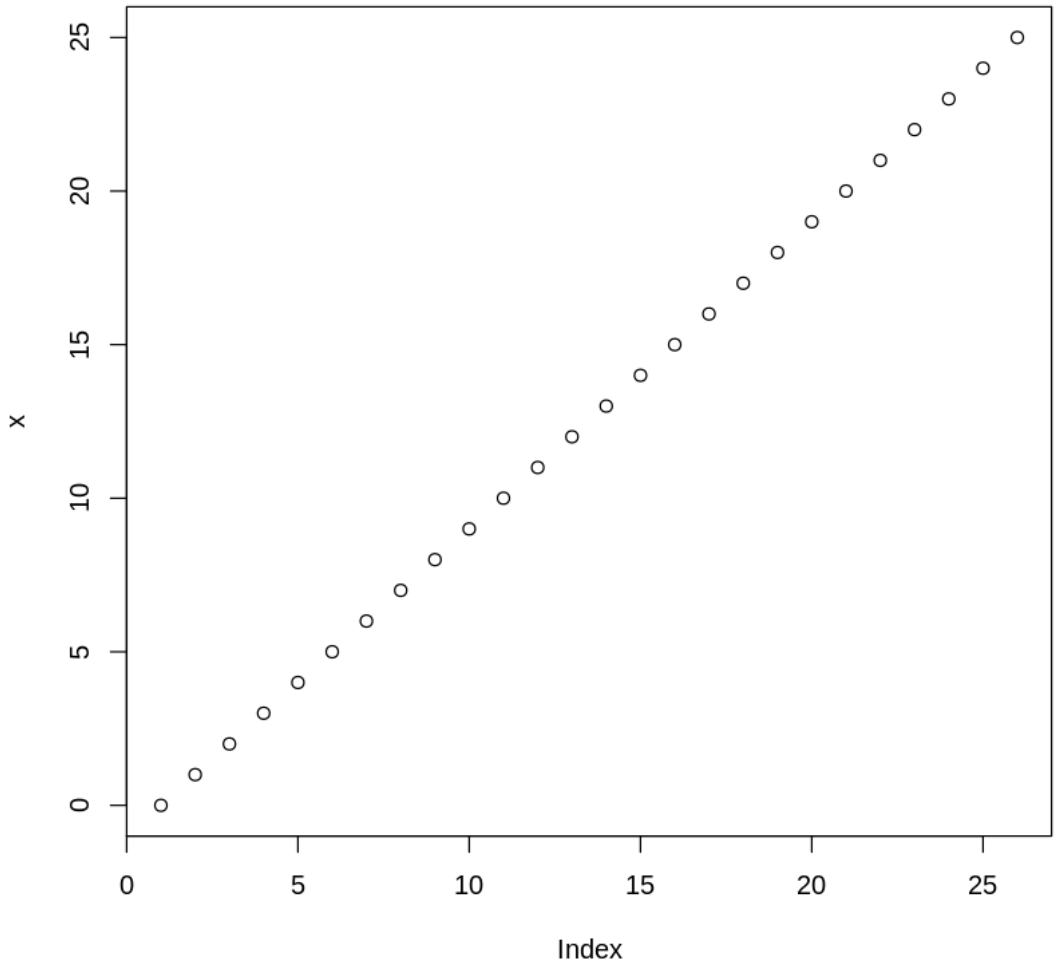

```
In [16]: plot (x, x^2, "s", col = "334477", )
```




```
In [17]: y <-c(0,1,2,3,4)

In [18]: plot(y)
```




```
In [19]: x <-c(0:25)

In [20]: plot(x)
```



In [21]: plot(x,y)

```
    Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
Traceback:


    1. plot(x, y)

    2. plot.default(x, y)

    3. xy.coords(x, y, xlabel, ylabel, log)
```

```
        4. stop("'x' and 'y' lengths differ")
```

```
In [22]: plot (x,y, "s")
```

```
        Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
    Traceback:


        1. plot(x, y, "s")

        2. plot.default(x, y, "s")

        3. xy.coords(x, y, xlabel, ylabel, log)

        4. stop("'x' and 'y' lengths differ")
```

```
In [23]: plot (x,y, 's')
```

```
        Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
    Traceback:


        1. plot(x, y, "s")

        2. plot.default(x, y, "s")

        3. xy.coords(x, y, xlabel, ylabel, log)

        4. stop("'x' and 'y' lengths differ")
```

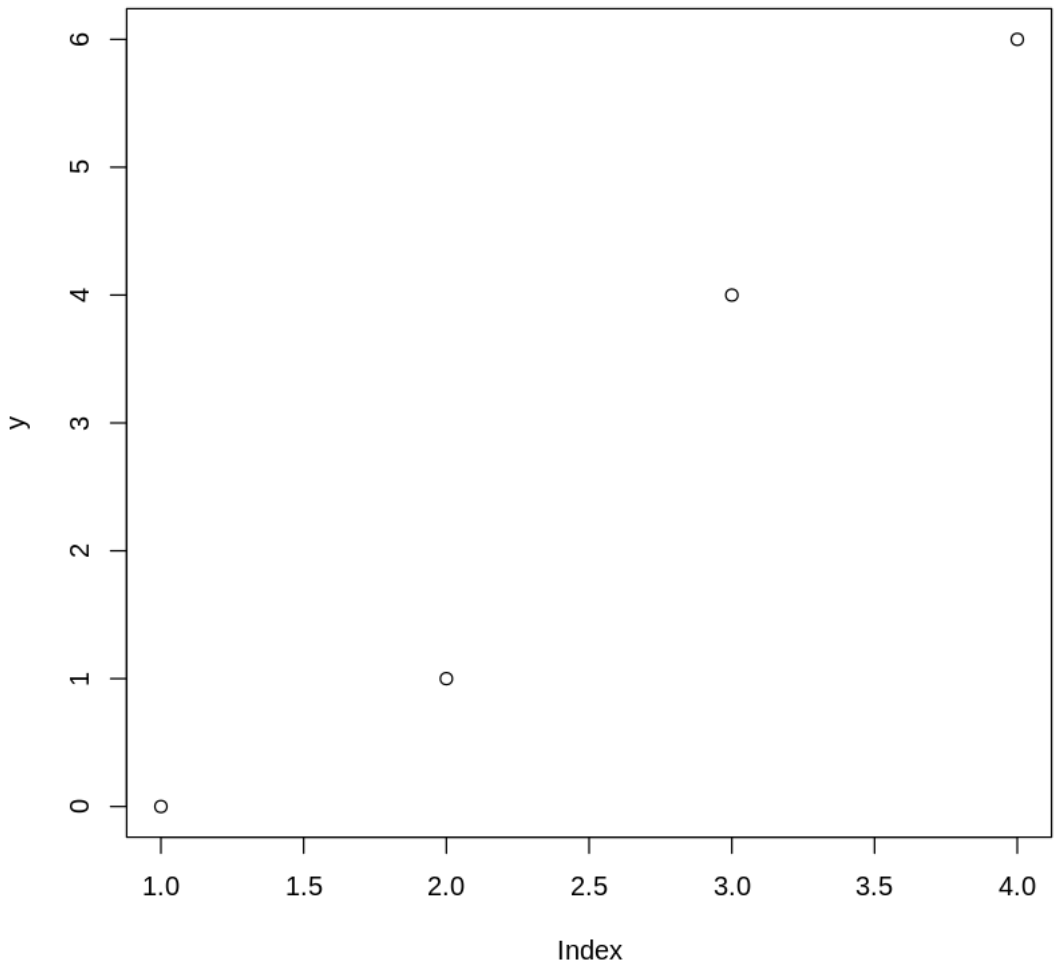
```
In [24]: y <-c(0,1,4,6)
```

```
In [25]: plot (x,y, 's')
```

```
        Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
    Traceback:


        1. plot(x, y, "s")

        2. plot.default(x, y, "s")

        3. xy.coords(x, y, xlabel, ylabel, log)
```

```
        4. stop("'x' and 'y' lengths differ")
```

In [26]:
```
plot (y)
```



In [27]:
```
plot (y, 's')
```

```
    Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
Traceback:
```

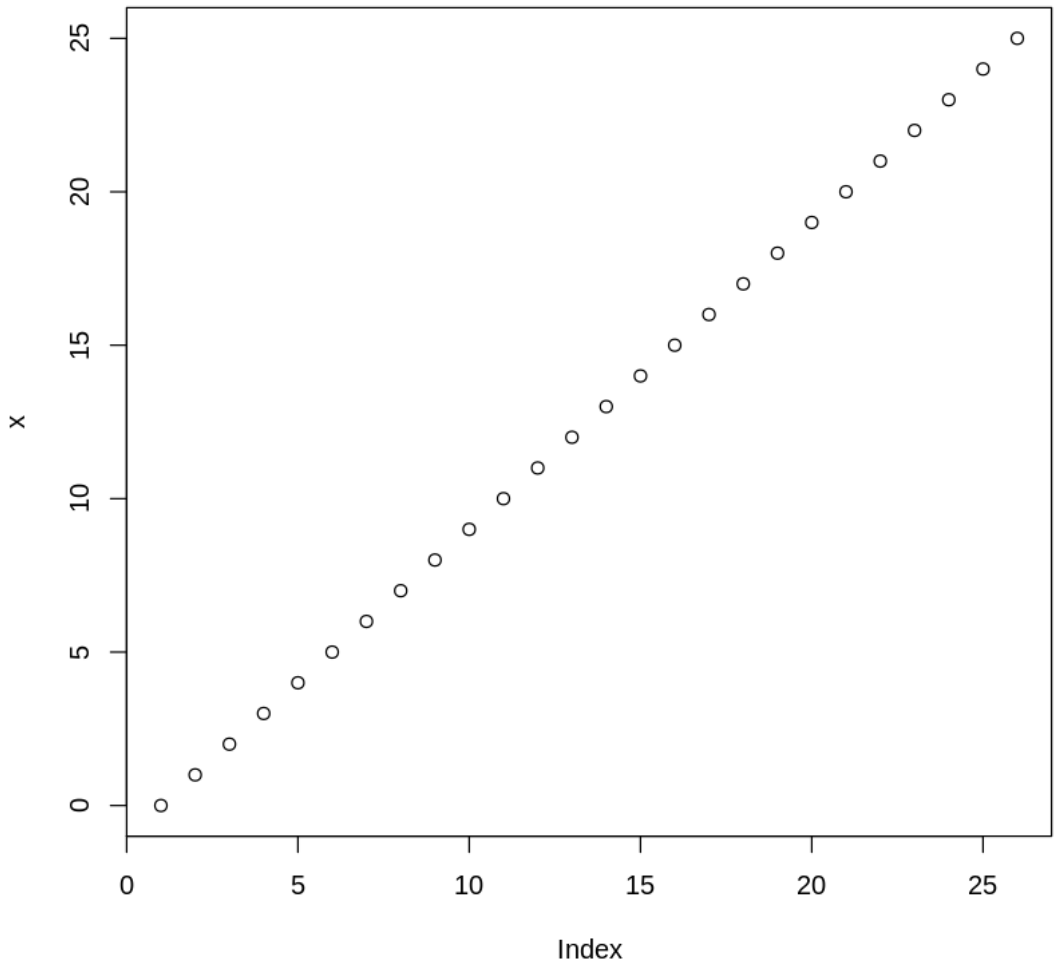
1. plot(y, "s")

2. plot.default(y, "s")

3. xy.coords(x, y, xlabel, ylabel, log)

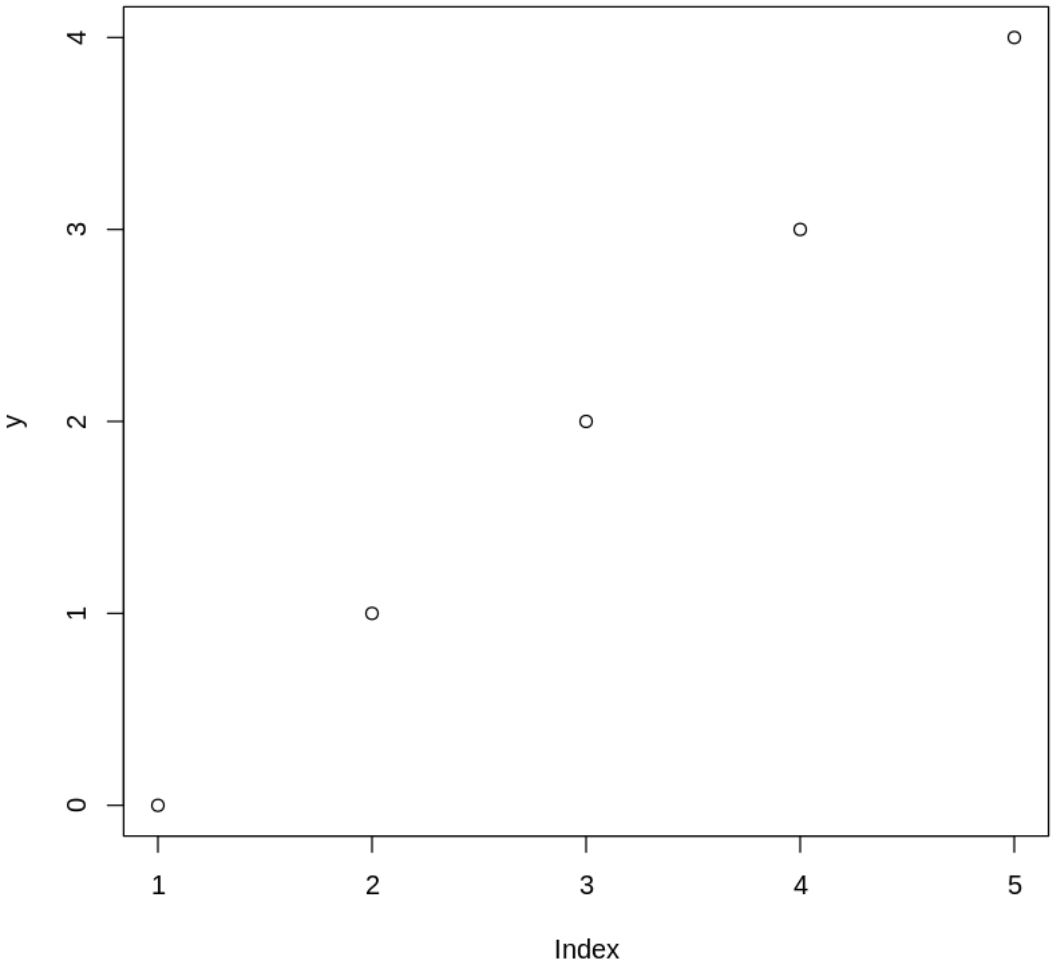
4. stop("'x' and 'y' lengths differ")

In [28]: plot (x)

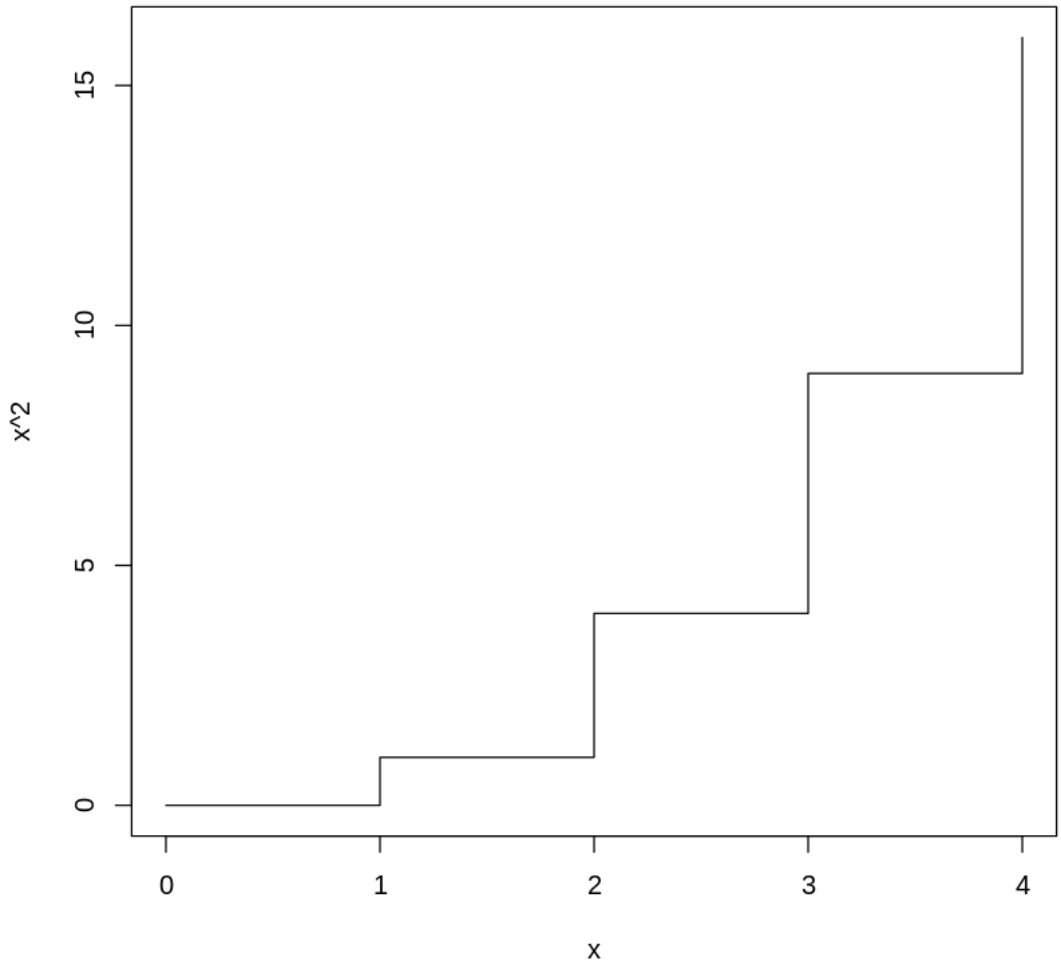


In [29]: y <- c(0:4)

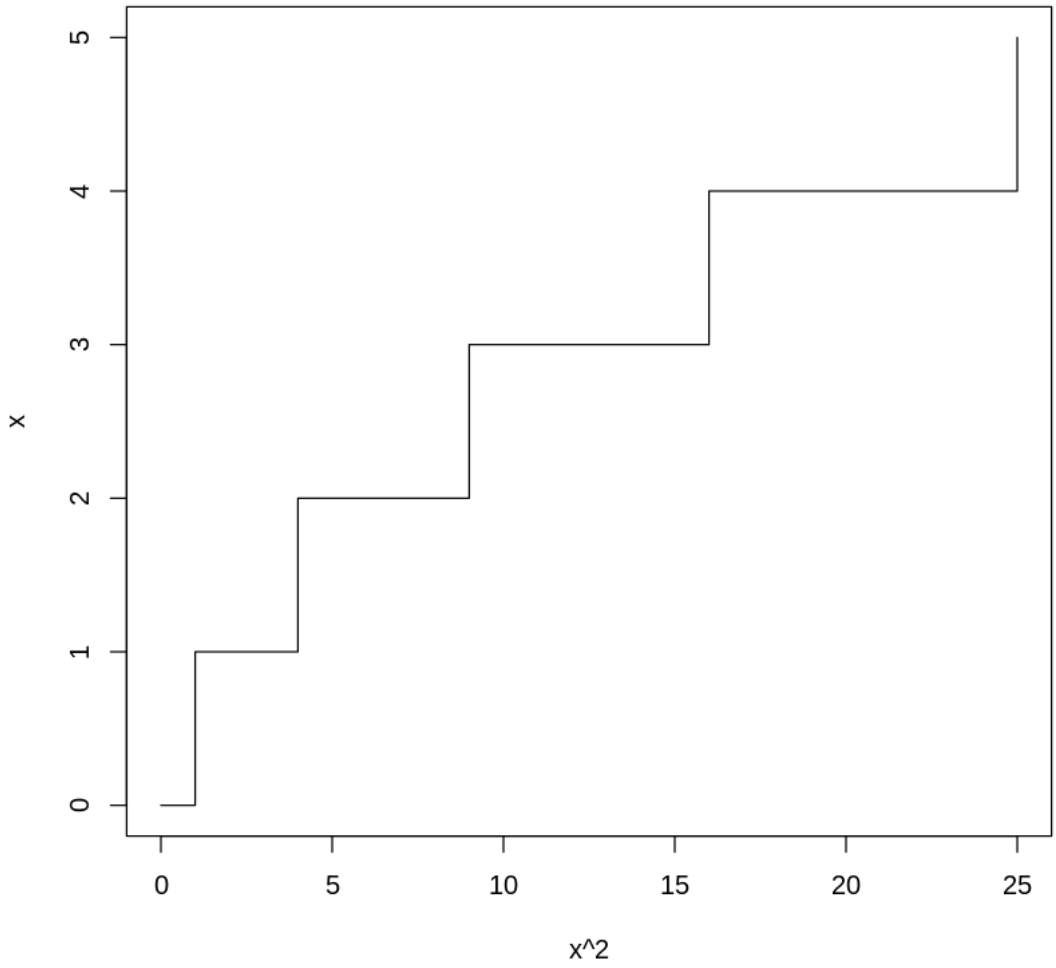
In [30]: plot (y)



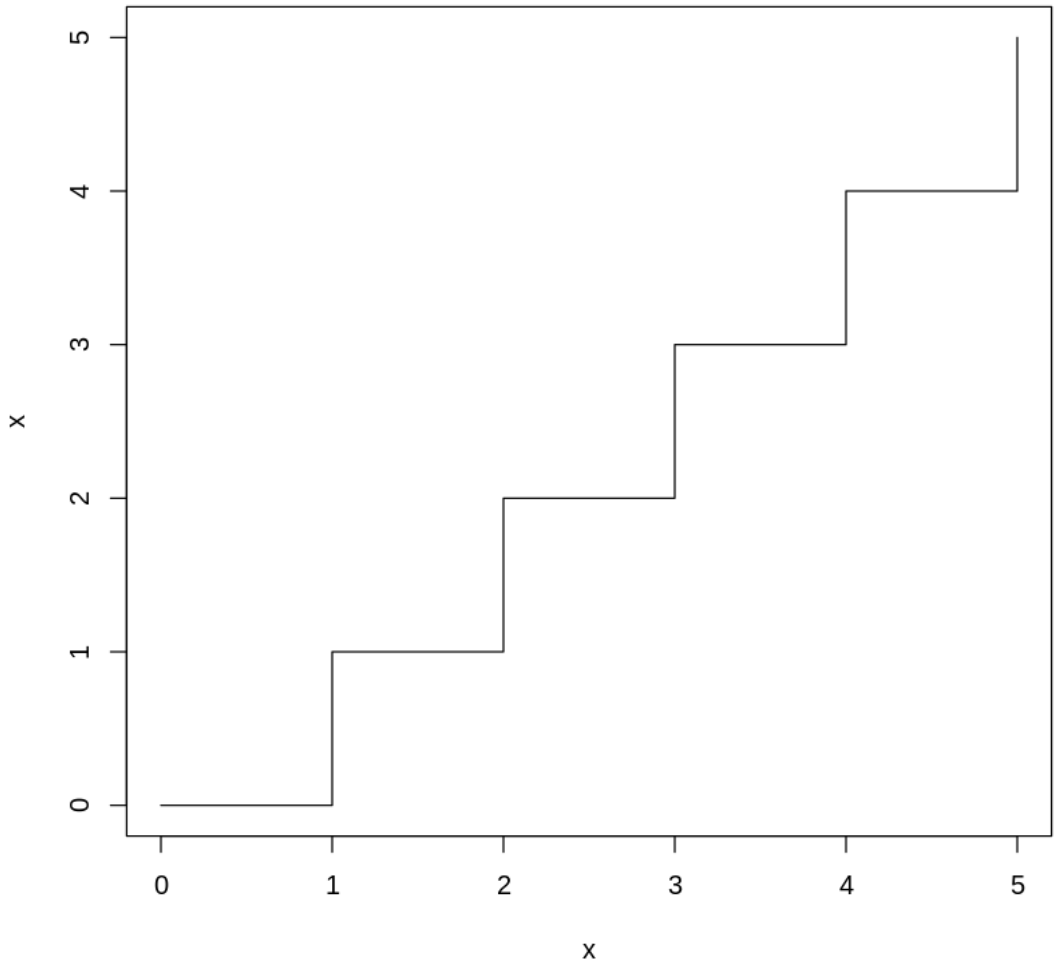

```
In [31]: x <- c(0,1,2,3,4)

In [32]: plot (x, x^2, 's')
```



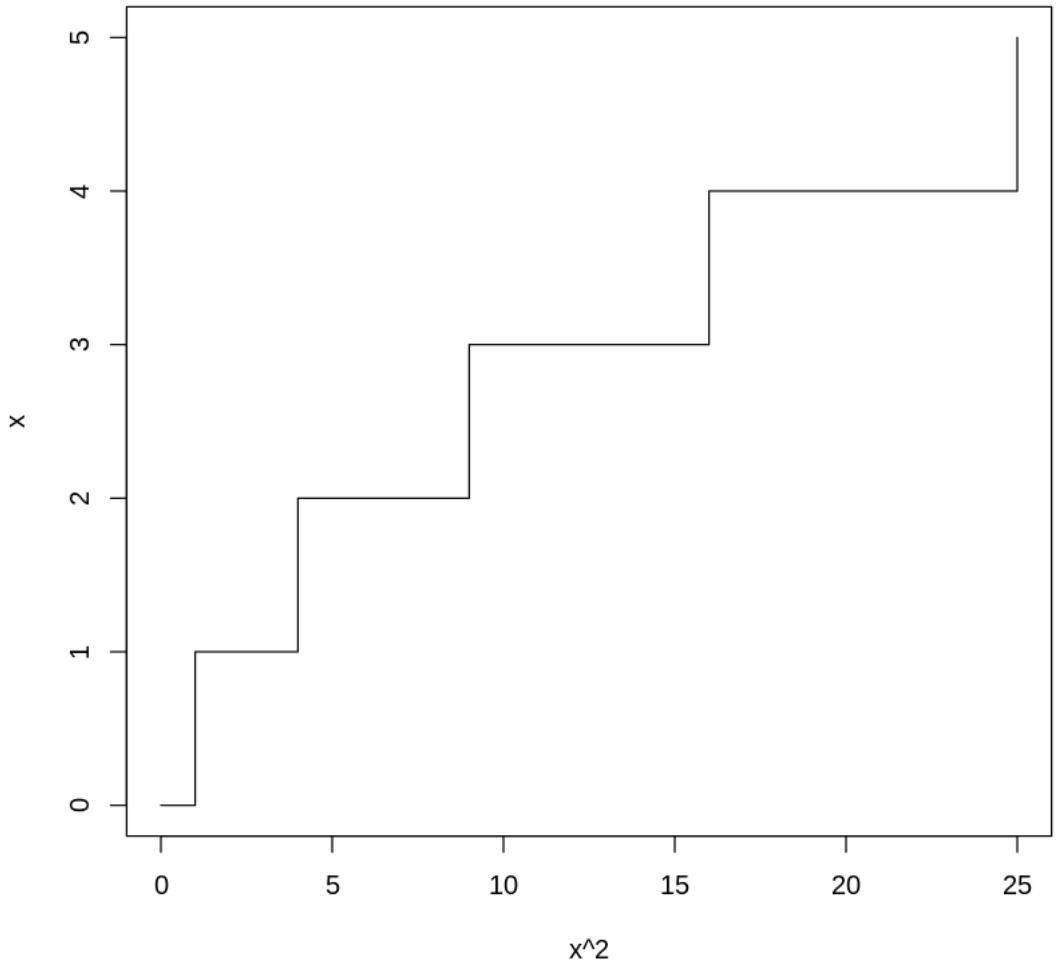

```
In [38]: y <- c(0,0,0,0,1,0,2,0,1)

In [34]: x <-c(0,1,2,3,4,5)

In [35]: plot (x^2,x,'s')
```




```
In [36]: plot (x,x,'s')
```

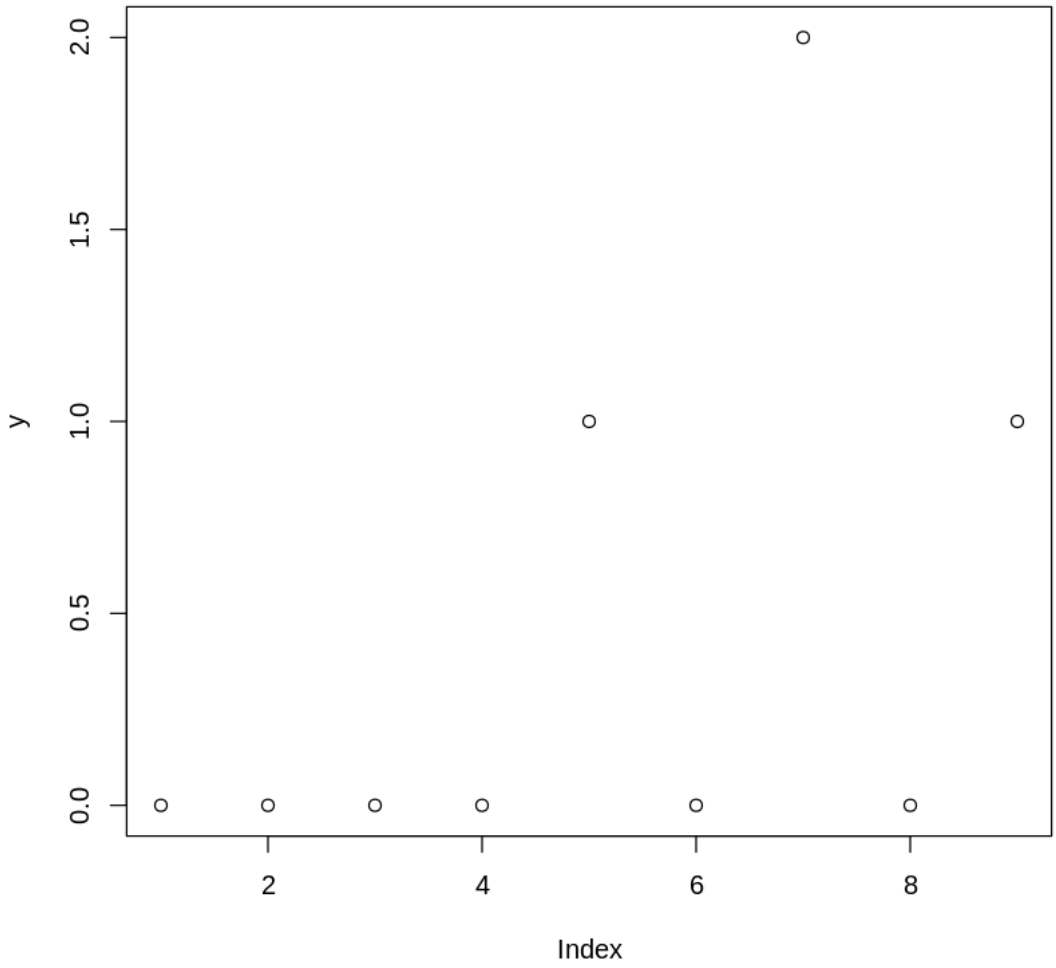



```
In [37]: plot (x^2,x,'s')
```




```
In [39]: y <- c(0,0,0,0,1,0,2,0,1)
```

```
In [40]: plot (y)
```




```
In [41]: plot (y,'s')
```

```
    Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
Traceback:


    1. plot(y, "s")

    2. plot.default(y, "s")

    3. xy.coords(x, y, xlabel, ylabel, log)
```

```
        4. stop("'x' and 'y' lengths differ")
```

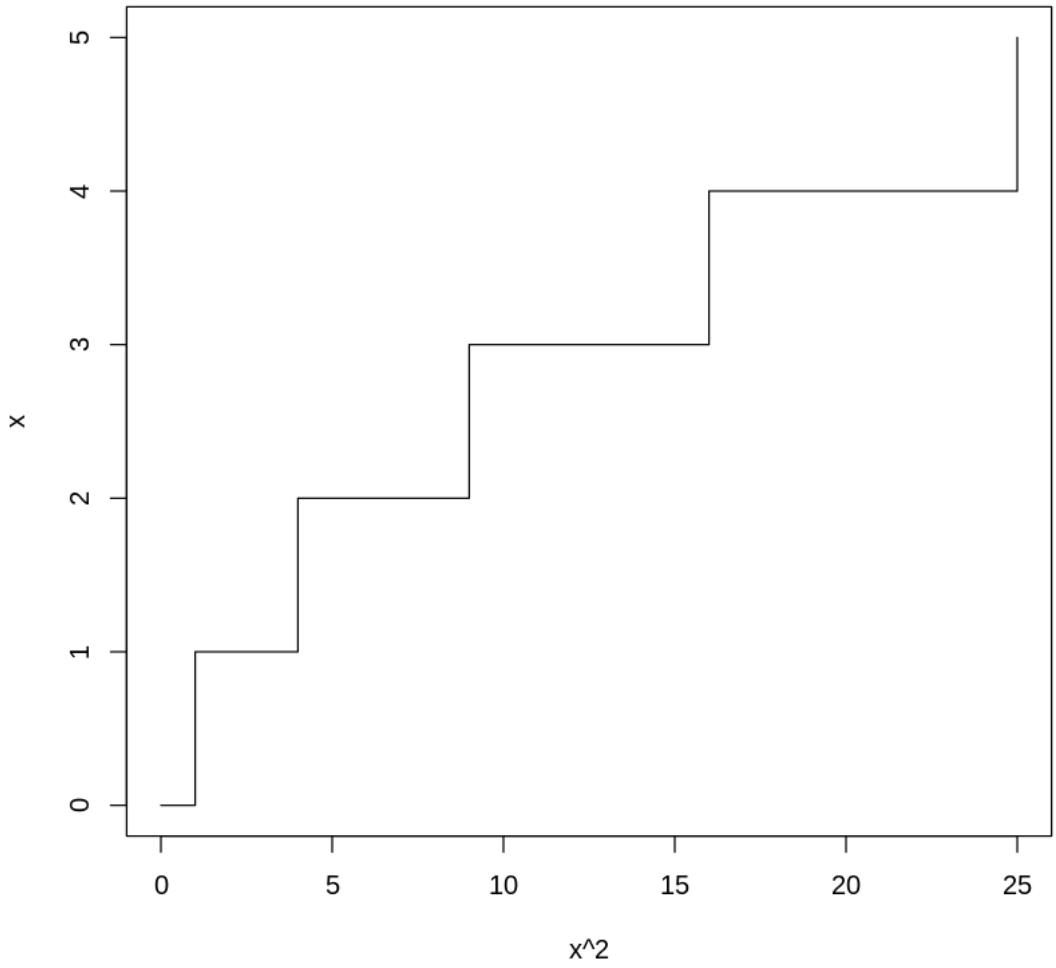
```
In [42]: plot(x,y,'s')
```

```
        Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
    Traceback:


        1. plot(x, y, "s")

        2. plot.default(x, y, "s")

        3. xy.coords(x, y, xlabel, ylabel, log)

        4. stop("'x' and 'y' lengths differ")
```

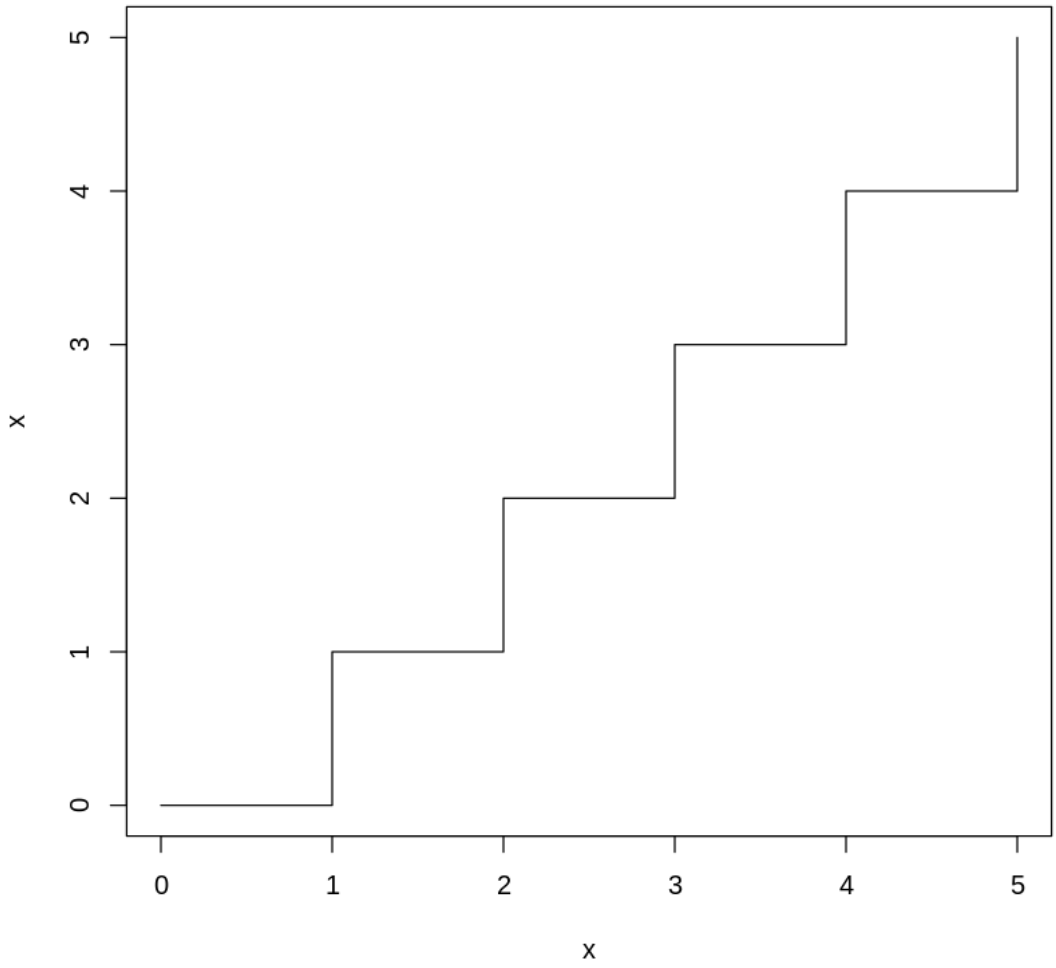
```
In [43]: plot(y,col='magneta', 's')
```

```
        Error in xy.coords(x, y, xlabel, ylabel, log): 'x' and 'y' lengths differ
    Traceback:


        1. plot(y, col = "magneta", "s")

        2. plot.default(y, col = "magneta", "s")

        3. xy.coords(x, y, xlabel, ylabel, log)

        4. stop("'x' and 'y' lengths differ")
```

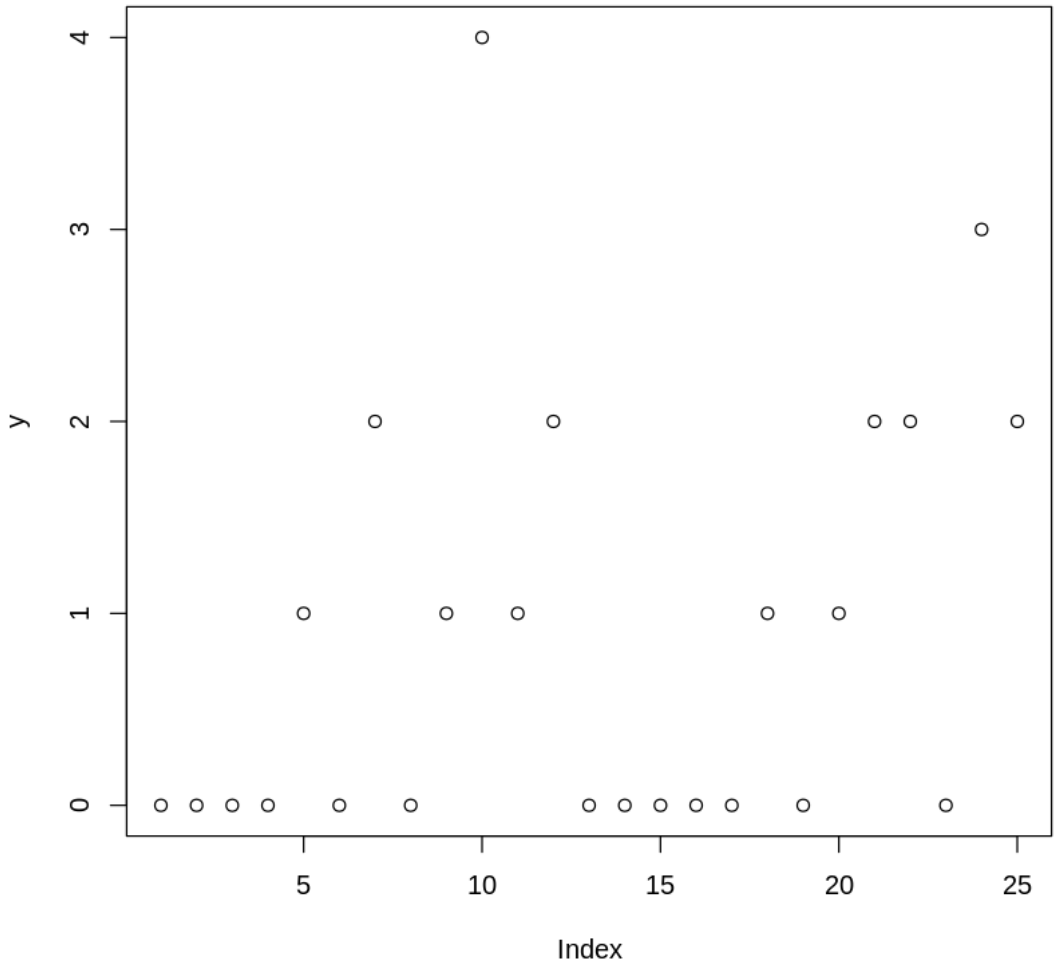
```
In [44]: plot (x^2,x,'s')
```




```
In [45]: plot(x,x,'s')
```



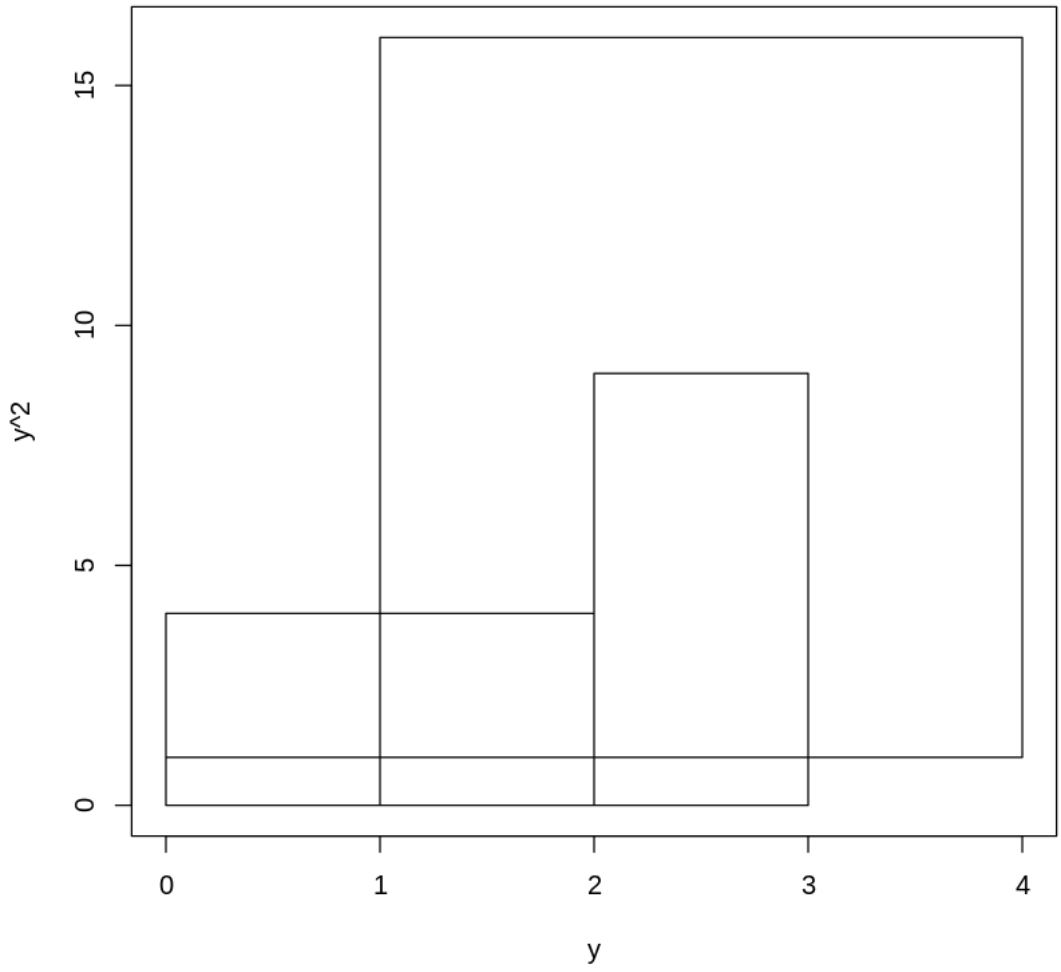

```
In [46]: y <- c(0,0,0,0,1,0,2,0,1,4,1,2,0,0,0,0,0,1,0,1,2,2,0,3,2)

In [47]: plot(y)
```



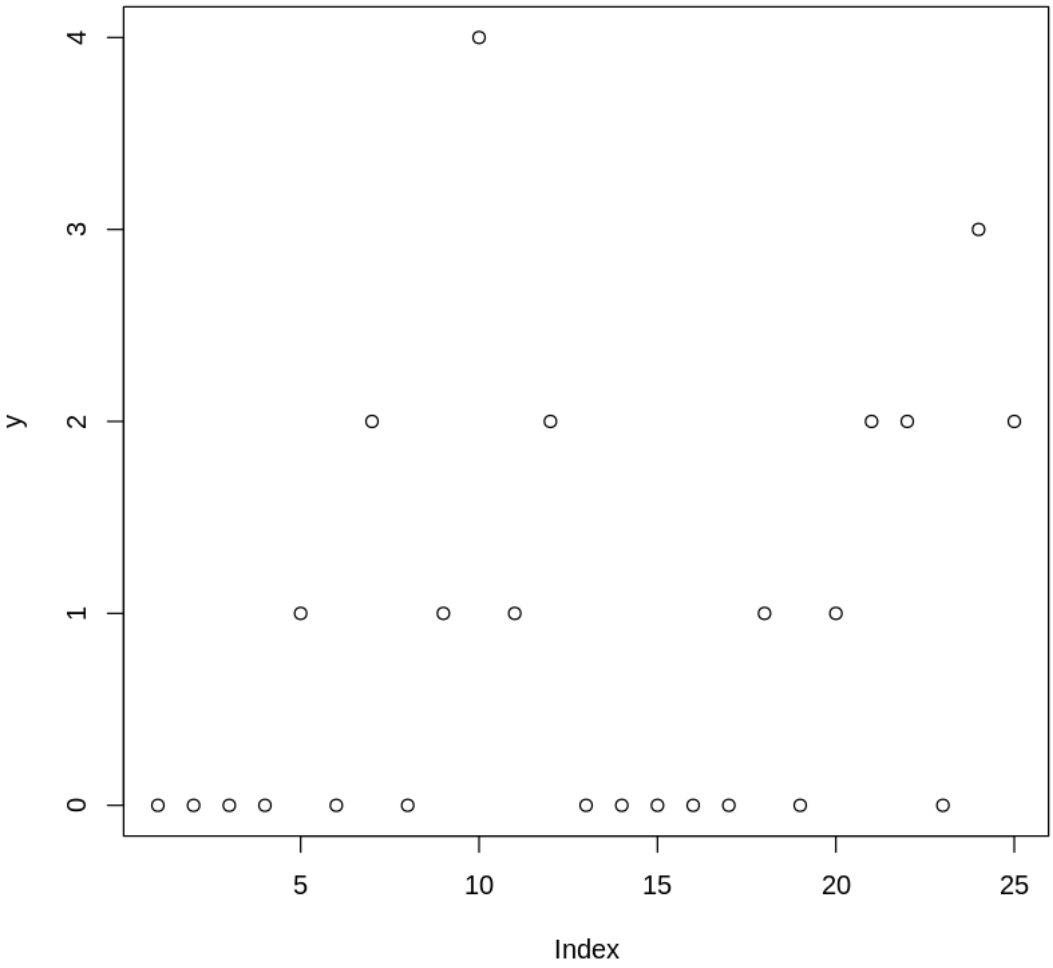

```
In [48]: plot (index,y,'s')
```

```
    Error in plot(index, y, "s"): object 'index' not found
Traceback:

    1. plot(index, y, "s")
```

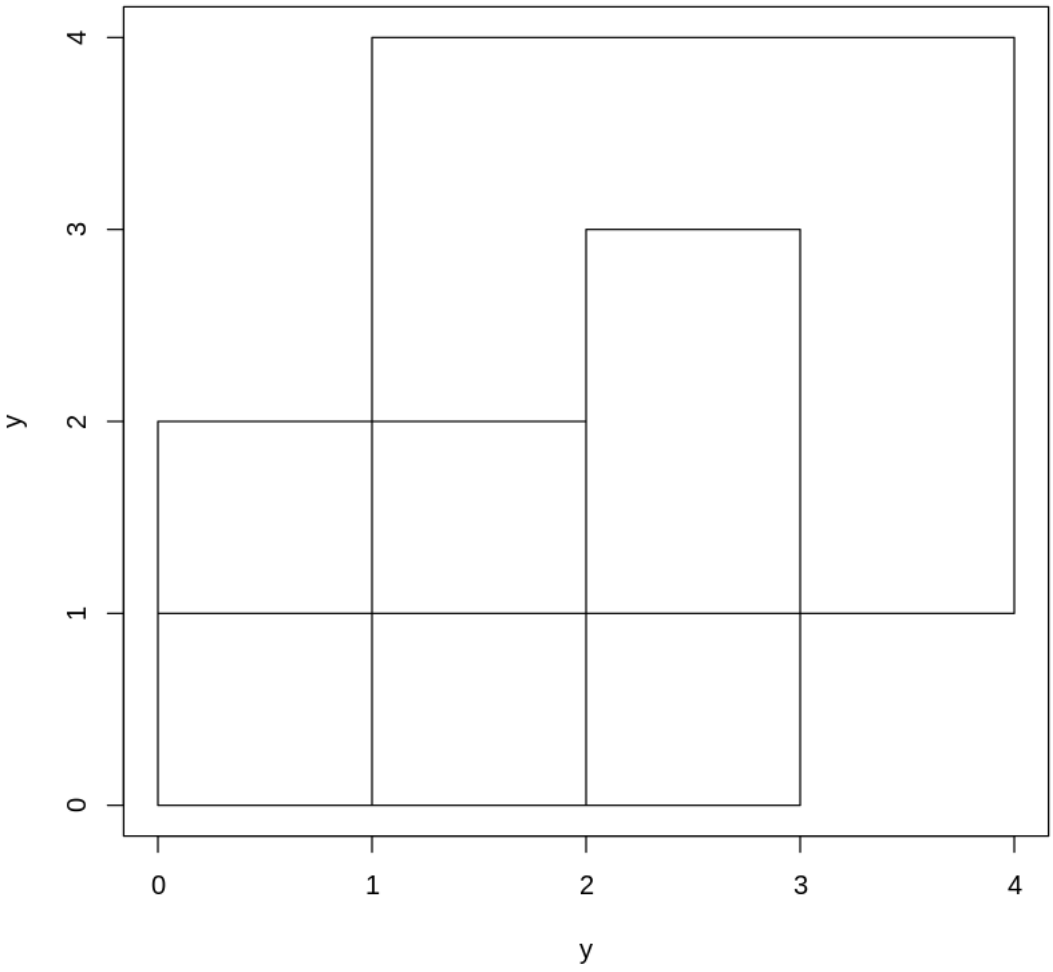
```
In [49]: plot (y,y^2,'s')
```



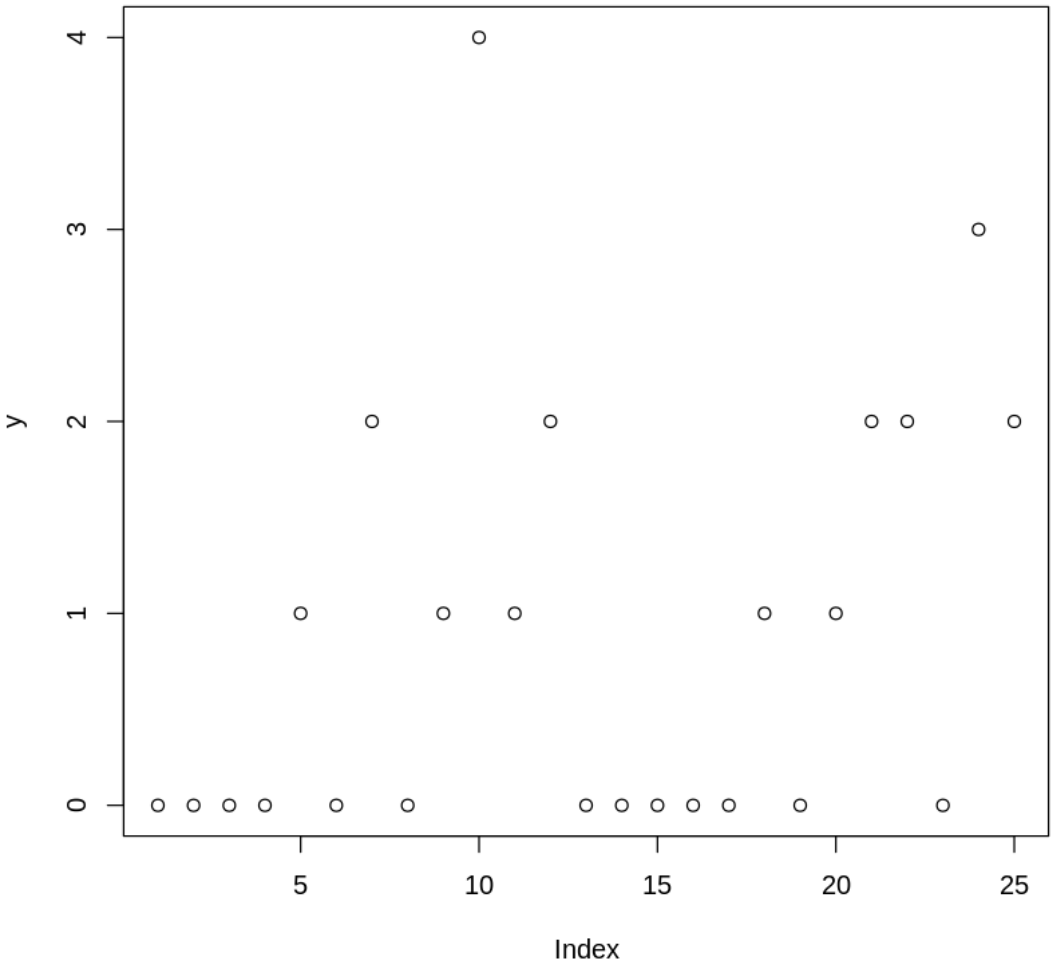

```
In [50]: plot (y)
```




```
In [51]: plot (y,y,'s')
```



In [52]: plot (y)


y
0
1
2
3
4
5
10
15
20
25
Index