

Learning R to be an efficient user

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R as a calculator

R as a basic calculator

We can use R as a calculator, for example,

```
2+3
```

```
## [1] 5
```

R as an advance calculator

We can use R as an advance calculator, for example,

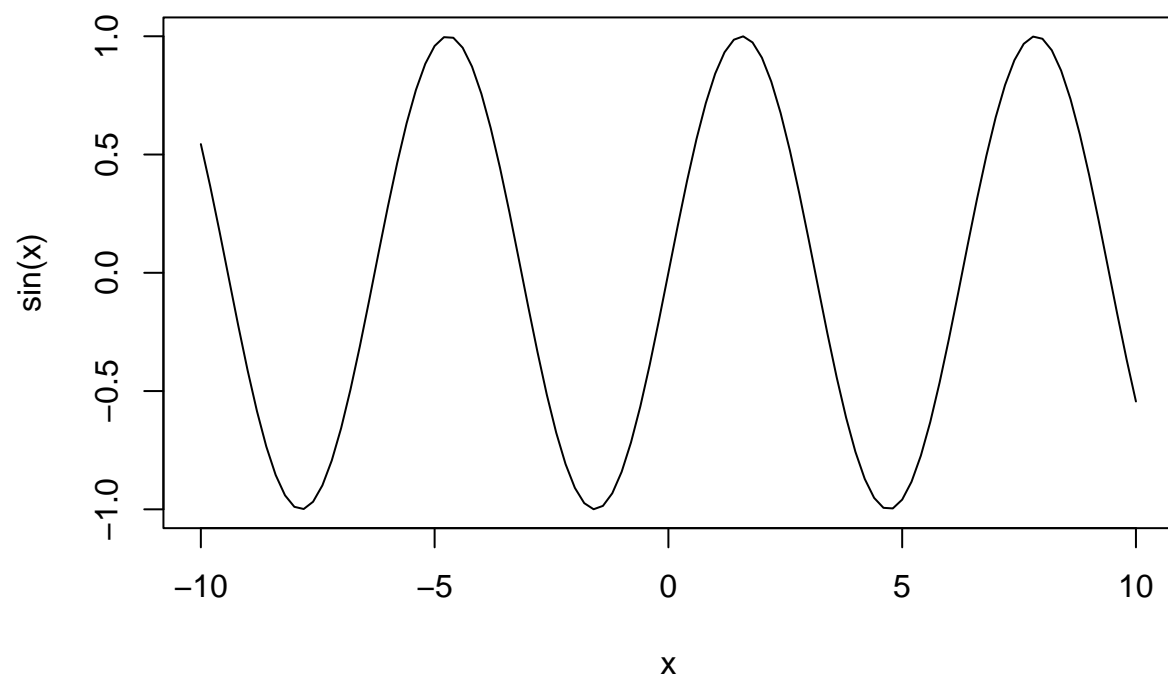
```
2*sin(2*pi)
```

```
## [1] -4.898587e-16
```

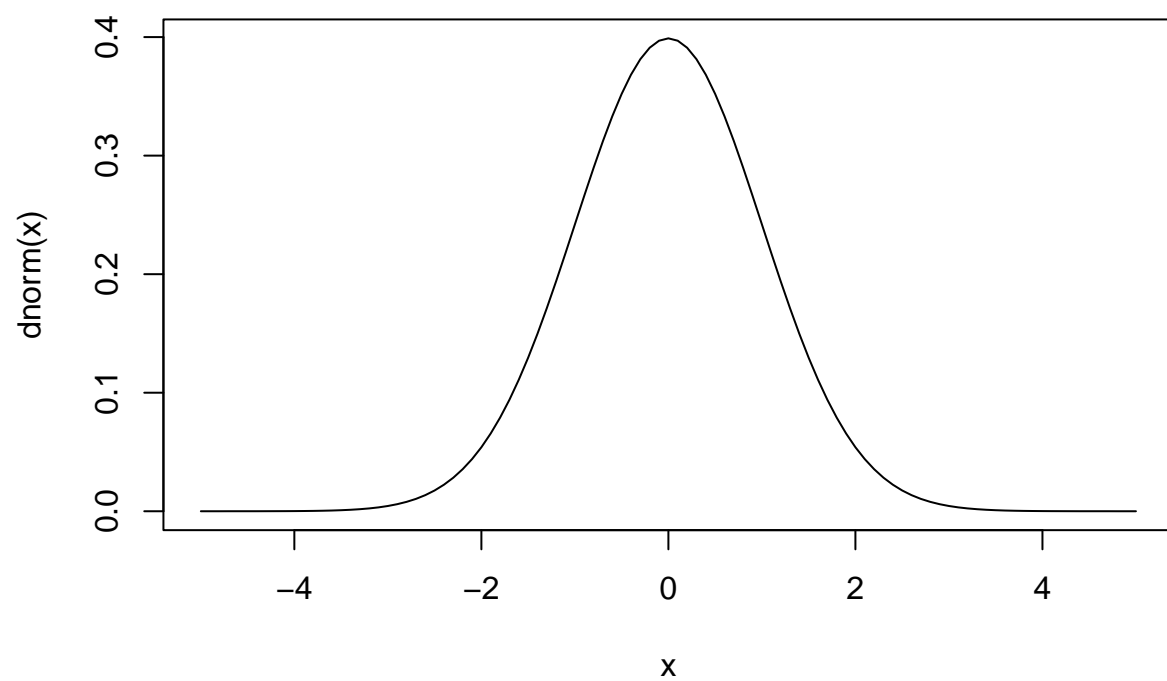
R is a graphical

We can plot a function in R easily

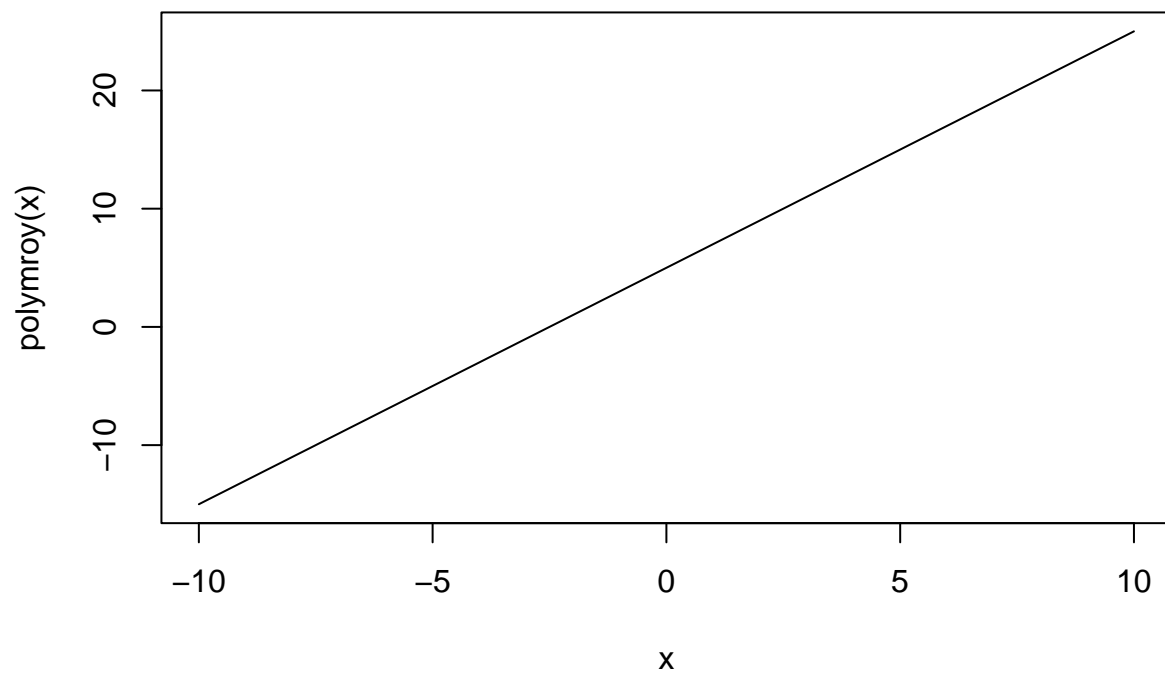
```
curve(expr = sin, from = -10, to = 10)
```



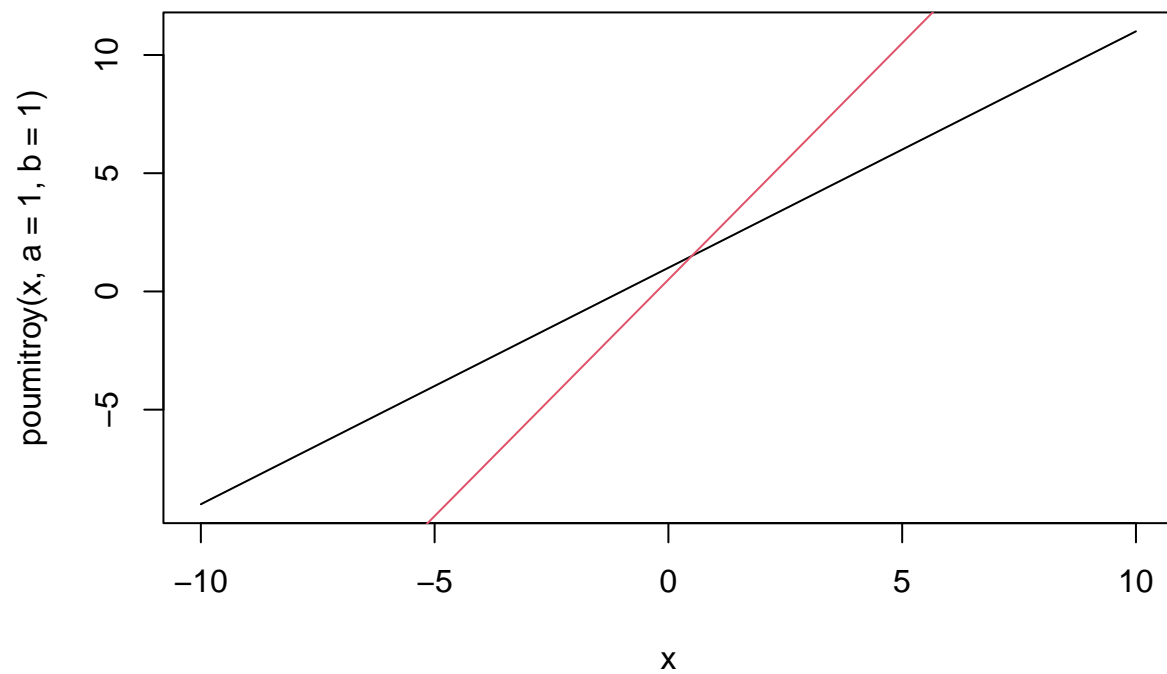
```
curve(expr = dnorm, from = -5, to = 5)
```



```
polymroy = function(x) {  
  y = 2*x + 5  
  return(y)  
}  
curve(expr = polymroy, from = -10, to = 10)
```



```
poumitroy = function(x, a, b) {  
  y = a*x + b  
  return(y)  
}  
curve(expr = poumitroy(x, a = 1, b = 1), from = -10, to = 10, col = 1)  
curve(expr = poumitroy(x, a = 2, b = 0.5), add = TRUE, col = 2)
```



```
pkroy = function(x, a, b) {  
  y = a*x^2 + b  
  return(y)  
}  
curve(expr = pkroy(x, a = 5, b = -3), from = -2, to = 2, col = "green")  
curve(expr = pkroy(x, a = 2, b = 2), col = "red", add = TRUE)
```

