

numeric_and_string_vars

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Numeric and String Variables in R
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1 1. Basic Math in R

```
In [ ]: 13 + 7  
In [ ]: 13 + 7 * 100      # R knows about order of operations  
In [ ]: (13 + 7) * 100    # Can also use parentheses
```

1.1 1.1 Floating-Point (i.e., decimal) Number

```
In [ ]: 2.15^3            # taking cube of a float  
In [ ]: 86/pi             # R knows about Pi  
In [ ]: tan(pi/2)         # R knows about trig, too
```

2 2. Variable Assignment

```
In [ ]: a <- 13 + 7       # Use the `<-` for assignment  
In [ ]: print(a)         # Now `a` stores value of `13 + 7` expression  
In [ ]: 5 + a             # We can continue to use `a` in subsequent code  
In [ ]: b <- 5 + a        # We can use `a` as part of new assignment expressions
```

2.1 2.1 Variable Re-Assignment

```
In [ ]: a <- 17  
  
        print(a)  
In [ ]: a <- a + 1  
  
        print(a)
```

```

In [ ]: b <- 23

        k <- 1 + b           # `k` is now 24

        b <- k + 2           # `b` is now 26

        print(b)

```

3. Character String Variables

```

In [ ]: name <- "paul"

In [ ]: print(name)           # print value of `name`

In [ ]: full_name <- paste(name, "steve") # paste can combine strings

In [ ]: print(full_name)

In [ ]: print(name)           # `name` variable is still the same

```

3.1 Other Functions Operating on Strings

```

In [ ]: fruit_string <- "mango peach"

In [ ]: nchar(fruit_string)   # count characters in string

In [ ]: upper_fruit <- toupper(fruit_string) # convert to uppercase

In [ ]: print(upper_fruit)    # original variable is unchanged

```