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| **EX.NO:4** | **NUMERICAL AND CHARACTER FUNCTION,STATISTICAL FUNCTION** |
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**1.NUMERICAL FUNCTIONS**

**(1)abs(x):**

**SOURCE** **CODE**

abs(5)

**OUTPUT**

> abs(5)

[1] 5

**(2)ceiling(x):**

**SOURCE** **CODE**

ceiling(12.3)

**OUTPUT**

> ceiling(12.7)

[1] 13

**(3)floor(x):**

**SOURCE** **CODE**

floor(12.5)

**OUTPUT**

> floor(12.5)

[1] 12

**(4)sqrt(x):**

**SOURCE** **CODE**

sqrt(36)

**OUTPUT**

> sqrt(36)

[1] 6

**(5)log(x):**

**SOURCE** **CODE**

log(123)

**OUTPUT**

> log(123)

[1] 4.812184

**(6)trunc(x)**

**SOURCE** **CODE**

trunc(5.99)

**OUTPUT**

> trunc(5.99)

[1] 5

**(7)round(x,digits=x)**

**SOURCE** **CODE**

round(5.467,digits=2)

**OUTPUT**

> round(5.467,digits=2)

[1] 5.47

**(8)log10(x):**

**SOURCE** **CODE**

log10(123)

**OUTPUT**

> log10(123)

[1] 2.089905

**(9)signif(x,digits=n):**

**SOURCE** **CODE**

signif(12.2345,digits=2)

**OUTPUT**

> signif(12.2345,digits=2)

[1] 12

**(10)exp(x):**

**SOURCE** **CODE**

exp(10)

**OUTPUT**

> exp(10)

[1] 22026.47

**(11)cos(x):**

**SOURCE** **CODE**

cos(0)

**OUTPUT**

> cos(0)

[1] 1

**(12)sin(x):**

**SOURCE** **CODE**

sin(0)

**OUTPUT**

> sin(0)

[1] 0

**(13)tan(x):**

**SOURCE** **CODE**

tan(0)

**OUTPUT**

> tan(0)

[1] 0

**URL:** <https://data-flair.training/blogs/r-numeric-and-character-functions/>

**2.CHARACTER FUNCTIONS**

**(1)substr(string,start value,stop value):**

**SOURCE CODE**

string="priya"

substr(string,2,4)

**OUTPUT**

> string="priya"

> substr(string,2,4)

[1] "riy"

**(2)strsplit(string,””):**

**SOURCE CODE**

strsplit("abc","")

**OUTPUT**

> strsplit("abc","")

[[1]]

[1] "a" "b" "c"

**(3) sub(pattern, replacement, x, ignore.case =FALSE, fixed=FALSE)**

**SOURCE CODE**

sub("\\s",".","Hello There")

**OUTPUT**

> sub("\\s",".","Hello There")

[1] "Hello.There"

**(4)toupper(string):**

**SOURCE CODE**

toupper("priya")

**OUTPUT**

> toupper("priya")

**[1] "PRIYA"**

**(5)tolower(string):**

**SOURCE CODE**

tolower("PRIYA")

**OUTPUT**

> tolower("PRIYA")

[1] "priya"

**(6)paste(string,sep=””):**

**SOURCE CODE**

paste("priya",3:4,sep="")

**OUTPUT**

> paste("priya",1:3,sep="")

[1] "priya1" "priya2" "priya3"

**(7)** **grep(pattern, x , ignore.case=FALSE, fixed=FALSE)**

**SOURCE CODE**

grep("A", c("b", "C", "A"), fixed = TRUE)

**OUTPUT**

> grep("A", c("b", "C", "A"), fixed = TRUE)

[1] 3