

# Package ‘set’

February 22, 2020

**Type** Package

**Title** Set Operation

**Version** 1.1

**Author** Zhi Jin, Jing Zhang

**Maintainer** Zhi Jin <nalanchongxuan@163.com>

**Description** More easy to get intersection, union or complementary set and combinations.

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 6.1.1

**Imports** do

**URL** <https://github.com/yikeshu0611/set>

**BugReports** <https://github.com/yikeshu0611/set/issues>

**NeedsCompilation** no

**Repository** CRAN

**Date/Publication** 2020-02-22 17:30:02 UTC

## R topics documented:

and . . . . .	2
and2 . . . . .	2
combination . . . . .	3
is.sub . . . . .	4
not . . . . .	4
not2 . . . . .	5
or . . . . .	6
or2 . . . . .	6
toVector . . . . .	7
<b>Index</b>	<b>8</b>

---

and

*Get Intersection Set for Sets*

---

### Description

Get intersection set for sets.

### Usage

```
and(...)
```

### Arguments

... see argument x in [toVector](#)

### Value

intersection elements

### Examples

```
A <- c("a", "b", "c")
B <- c("a", "b", "c", "d")
C <- c("a", "e", "h")
and(A, B)
and(A, B, C)
```

---

and2

*Get Intersection Set for Two Sets*

---

### Description

Get intersection set for two sets, which can be numbers, characters, vectors even dataframe, matrix or list.

### Usage

```
a %and% b
```

```
a %a% b
```

```
a %A% b
```

```
"&"(a, b)
```

**Arguments**

a                    see argument x in [toVector](#)  
b                    see argument x in [toVector](#)

**Value**

intersection set

**Examples**

```
A <- c("a", "b", "c")
B <- c("a", "b", "c", "d")
C <- c("a", "e", "h")
A %and% B
A %and% B %and% C
```

---

combination

*Combination of Characters or Vectors*

---

**Description**

Combination of characters or vectors.

**Usage**

```
combination(...)
```

**Arguments**

...                    one or more vectors

**Value**

binary combination

**Examples**

```
A <- c("a", "b", "c")
combination(A)

B <- c("a", "b", "c", "d")
C <- c("a", "e", "h")
D <- c("a", "b", "e")
E <- c("a", "c")
combination(A,B)
combination(A,B,C)
combination(A,B,C,D)
combination(A,B,C,D,E)
```

---

`is.sub`*Judge Subset*

---

**Description**

Whether data set a is a subject of data set A.

**Usage**

```
is.sub(a, A)
```

**Arguments**

a                    see argument x in [toVector](#)  
A                    see argument x in [toVector](#)

**Value**

logical result.

**Examples**

```
a <- c("a", "b", "c")  
A <- c("a", "b", "c", "d")  
is.sub(a, A)
```

---

`not`*Get Elements only Existed in Dataset a*

---

**Description**

Get elements only existed in dataset a.

**Usage**

```
not(...)
```

**Arguments**

...                    see argument x in [toVector](#)

**Value**

elements only existed in dataset a

**Examples**

```
A <- c("a", "b", "c")
B <- c("a", "b", "c", "d")
not(B, A)
```

---

not2

*Get Elements only Existed in Dataset a*

---

**Description**

Get elements only existed in dataset a.

**Usage**

a %not% b

a %n% b

a %N% b

"/"(a, b)

**Arguments**

a                   see argument x in [toVector](#)

b                   see argument x in [toVector](#)

**Value**

elements only existed in dataset a

**Examples**

```
A <- c("a", "b", "c")
B <- c("a", "b", "c", "d")
B %not% A
```

---

or *Get Union Set for Sets*

---

**Description**

Get union set for sets.

**Usage**

```
or(...)
```

**Arguments**

... see argument x in [toVector](#)

**Value**

union elements

**Examples**

```
A <- c("a", "b", "c")
B <- c("a", "b", "c", "d")
C <- c("a", "e", "h")
or(A, B)
or(A, B, C)
```

---

or2 *Get Union Set for Two Sets*

---

**Description**

Get union set for two sets.

**Usage**

```
a %or% b
```

```
a %r% b
```

```
a %R% b
```

```
"|"(a, b)
```

**Arguments**

a see argument x in [toVector](#)  
b see argument x in [toVector](#)

**Value**

union set

**Examples**

```
A <- c("a", "b", "c")
B <- c("a", "b", "c", "d")
C <- c("a", "e", "h")
A %or% B
A %and% B %or% C
```

---

toVector

*Convet to Character*

---

**Description**

Convert dataframe, matrix, list, array or vector to character vector.

**Usage**

```
toVector(x)
```

**Arguments**

x can be vector, dataframe, matrix, list, array

**Value**

a character vector

**Examples**

```
df=data.frame(a=c(1,2,3))
toVector(df)
```

# Index

/ (not2), 5  
%A% (and2), 2  
%N% (not2), 5  
%R% (or2), 6  
%a% (and2), 2  
%and% (and2), 2  
%n% (not2), 5  
%not% (not2), 5  
%or% (or2), 6  
%r% (or2), 6  
& (and2), 2

and, 2  
and2, 2

combination, 3

is.sub, 4

not, 4  
not2, 5

or, 6  
or2, 6

toVector, 2–7, 7