

Chapter 15 Answers

Highlights

- Review these functions
 - list
 - attributes
 - unlist

15.1 What is returned by the following R commands ?

```
my.list = list(x = 7:2, y = letters )
my.list$y[4]
```

```
## [1] "d"
```

15.2 Write a single R command that creates a list named x with the following three components:

- the character string “gnu”,
- a five-element vector containing the integers 3, 4, 5, 6, 7, and
- a 12-element vector containing the abbreviations of the names of the months

Write a second R command that extracts the fourth element of the third component.

```
x = list ("gnu" , 3:7 , month.abb)
x[[3]][4]
```

```
## [1] "Apr"
```

15.3 All of the varieties of objects encountered thus far may have names attached to their elements. Type the following R commands into an R session.

```
x = 1:3
names(x) = c( "first", "second", "third" )
x
```

```
## first second third
##      1      2      3
```

```
y = c(first = 1, second = 2, third = 3)
y
```

```
## first second third
##      1      2      3
```

```
x == y
```

```
## first second third
##  TRUE  TRUE  TRUE
```

```
z = c(first = 1, second = 2, 3)
z
```

```
## first second
##      1      2      3
```

```
z == x
```

```
## first second
##  TRUE  TRUE  TRUE
```

```
x == z
```

```
## first second third  
##  TRUE  TRUE  TRUE
```

```
z == y
```

```
## first second  
##  TRUE  TRUE  TRUE
```

```
y == z
```

```
## first second third  
##  TRUE  TRUE  TRUE
```

What do you conclude about attaching names to some elements but not to others ?