

MATH 208 - Assignment 1 (Question 3)

Parsa Yadollahi
260869949
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Question 3

a)

```
shopping_list<-list(  
  Grocery = list(  
    Dairy = c("Milk","Cheese"),  
    Meat = c("Chicken","Sausage","Bacon"),  
    Spices = c("Cinnamon")  
  ),  
  Pharmacy = c("Soap","Toothpaste","Toilet Paper")  
)
```

i)

```
shopping_list$Pharmacy
```

```
## [1] "Soap"          "Toothpaste"    "Toilet Paper"
```

ii) `shopping_list[1][[2]]`

Error in `shopping_list[1][[2]]` : subscript out of bounds `shopping_list[1]` returns a list of length 1, which means that there is no second element of the list so `[[1]]` is it's final element.

iii)

```
shopping_list[[1]][[3]]
```

```
## [1] "Cinnamon"
```

iv)

```
shopping_list$Grocery[2][1]
```

```
## $Meat  
## [1] "Chicken" "Sausage" "Bacon"
```

b)

```
Result_1=shopping_list$Pharmacy  
Result_1
```

```
## [1] "Soap"          "Toothpaste"    "Toilet Paper"
```

```
Result_2=shopping_list[2]  
Result_2
```

```
## $Pharmacy  
## [1] "Soap"          "Toothpaste"    "Toilet Paper"
```

```
Result_3=shopping_list[[1]][[2]][2]  
Result_3
```

```
## [1] "Sausage"
```