Lab Exercise #1

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```
#1
#a)
vector <- -5:5
vector
```

```
##  [1] -5 -4 -3 -2 -1  0  1  2  3  4  5
```

```
#b
x <- 1:7
x
```

```
## [1] 1 2 3 4 5 6 7
```

```
#2
#a)
vector <- seq(1, 3, by = 0.2)
vector
```

```
##  [1] 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0
```

```
#3
ages <- c(34, 28, 22, 36, 27, 18, 52, 39, 42, 29, 35, 31, 27,
22, 37, 34, 19, 20, 57, 49, 50, 37, 46, 25, 17, 37, 43, 53, 41, 51, 35,
24,33, 41, 53, 40, 18, 44, 38, 41, 48, 27, 39, 19, 30, 61, 54, 58, 26,
18)
#A
ages[3]
```

```
## [1] 22
```

```
ages[c(2,4)]
```

```
## [1] 28 36
```

```
ages[-1]
```

```
##  [1] 28 22 36 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 25 17 37
## [26] 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

```r
#4
x <- c("first"=3, "second"=0, "third"=9)
names(x)
```

```
## [1] "first"  "second" "third"
```

```r
x
```

```
##  first second  third
##      3      0      9
```

```r
x[c("first", "third")]
```

```
## first third
##     3     9
```

```r
#5
x <- -3:2
x[2] <- 0
x
```

```
## [1] -3  0 -1  0  1  2
```

```r
#6
#a)
month <- c("Jan", "Feb", "March", "Apr", "May", "June")
price_per_liter_php <- c(52.50, 57.25, 60.00, 65.00, 74.25, 54.00)
purchase_quantity_liters <- c(25, 30, 40, 50, 10, 45)

#b)
fuel_purchase <- data.frame(
Month = month,
Price_per_Liter_PHP = price_per_liter_php,
Purchase_Quantity_Liters = purchase_quantity_liters
)

fuel_purchase
```

```
##   Month Price_per_Liter_PHP Purchase_Quantity_Liters
## 1   Jan               52.50                       25
## 2   Feb               57.25                       30
## 3 March               60.00                       40
## 4   Apr               65.00                       50
## 5   May               74.25                       10
## 6  June               54.00                       45
```