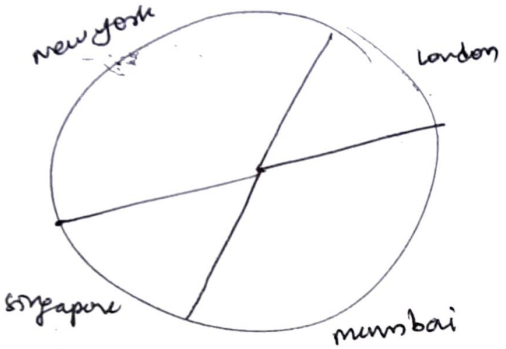
Set 7

(1).

```
x = c(21, 62, 10, 53)
labels = c("London", "New York", "Singapore", "Mumbai")
pie(x, labels, col = c("Blue", "yellow", "green", "Red"))
```

output



(3)

```
data(mtcars)
model <- lm(mpg ~ ., data = mtcars)
summary(model)
predictions <- predict(model, newdata = mtcars)
mse <- mean((predictions - mtcars$mpg)^2)
print(paste("Mean squared error:", mse))
```

(4)

(4)

```
sequence <- c(1)
n<-1
number <- 1

while (number < 47)
{
  n<- n+1
  if (n%%2 == 0 || n%%3 == 0)
  {
    sequence <- c(sequence, 0)
  }
  else
  {
    number <- number + 2
    sequence <- (sequence, number)
  }
}
print(sequence)
```

(3)

a)

```
library(stats)
mean<-60
standard_deviation <-4
speed_threshold <- 68

probability <-1- pnorm(speed_threshold, mean,
                       standard_deviation)

print(probability)
```

Output

0.02275013

b)

```
mean <- 60
s_d <-4
t_s <- 55

probability <- pnorm(t_s, mean = mean, sd = s_d)
probability
```

→

0.1056498