Problem Sheet 1

David Raj Micheal

In a baking competition, there are three judges who would score a cake created by each participant from zero (inedible) to ten (excellent). There are ten contestants in the competition, and the matrix of scores are given in the following table. You can download the dataset from here.

```
judges_data = read.table('3judges.txt', header = TRUE)
judges_data
```

```
##    J1 J2 J3
## 1   7  7  7
## 2   6  7  7
## 3   5  6  4
## 4   6  7  6
## 5   7  8  7
## 6   7  8  7
## 7   5  7  4
## 8   6  8  5
## 9   5  5  5
## 10  7  7  6
```

Answer the following questions:

1. Which judge gives higher scores than the others?
2. What is the total and average score that each contestant received?
3. The host of the competition realises that the first judge had a cold and the score he gave is not entirely reliable. So the host suggests that the scores given by Judge 1 are weighted by 0.5, by Judge 2 are weighted by 1.25, and by Judge 3 are weighted by 1.25 as well. In this new scheme of scoring, what are the total scores that each individual receives?
4. Judge 1 protested the new scheme and suggested a different scoring scheme. He sug- gested that the weights should be 0.5, 1.0, and 1.0 for Judge 1 to Judge 3 respectively. In this scheme, what is the average score per participant
5. Add some random names for the constestants using `randomNames` package.