21BDS0340

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Probability and Statistics Lab

Lab Assessment – II

Code:

```
exp = c(50, 150, 250, 350, 450, 550, 650)
fam = c(10, 6, 9, 16, 4, 24, 27)
d = rep(exp, fam)
print(paste("Mean: ", mean(d)))
print(paste("Median: ", median(d)))
print(paste("Mode: ", max(d)))
MDmean = 0
for(i in d){
 MDmean = MDmean + abs(mean(d) - i)
}
print(paste("Mean deviation about mean: ", MDmean / length(d)))
MDmedian = 0
for(i in d){
 MDmedian = MDmedian + abs(median(d) - i)
}
print(paste("Mean deviation about median: ", MDmedian / length(d)))
MDmode = 0
for(i in d){
 MDmode = MDmode + abs(max(d) - i)
}
print(paste("Mean deviation about mode: ", MDmode / length(d)))
```

Output:

```
[1] "Mean:  435.416666666667"
[1] "Median:  550"
[1] "Mode:  650"
[1] "Mean deviation about mean:  179.210069444445"
[1] "Mean deviation about median:  170.833333333333"
[1] "Mean deviation about mode:  214.583333333333"
```