Lab

```
data one;
        input A B RESP;
        cards;
1 1 .1
1 2 .2
2 1 0.15
2 2 .25
3 1 0.05
3 2 0.15
;
```

Lab

Considering the above data with 2 factors and no interactions.

1) Find the N necessary to detecting a difference between Level 1 of factor A and Level 3 of factor A with power 0.8. (HINT: Use the lowest probability for the SD)
2) Find the Power of detecting a difference between level 1 and level 2 of factor B when N = 500.
3) The above assumes no interactions. Now assume that there is an interaction between factor 2 and factor 3. Make this new dataset, and test the difference between treatment 1 and 2 of factor A given this interaction. (Hint: you can't remove this from your contrast statement.)