

27-11-2024

Enlist the results in APA format after performing ANOVA on the following data set:

```
[ nmeansd 3050.2610.45 3045.3212.76 3053.6711.47 ]  
[ n 30 30 30  
mean 50.26 45.32 53.67 sd 10.45 12.76 11.47 ]
```

Solution:

- Variance of first set = $(10.45)^2 = 109.2$
- Variance of second set = $(12.76)^2 = 162.82$
- Variance of third set = $(11.47)^2 = 131.56$

$$MS_{error} = \{109.2 + 162.82 + 131.56\} / \{3\}$$
$$= 134.53$$

$$MS_{between} = (17.62)(30) = 528.75$$

$$F = MS_{between} / MS_{error}$$
$$= 528.75 / 134.53$$

$$F = 4.86$$

APA writeup: $F(2, 87)=3.93, p >=0.01, \eta^2=0.08.$