

26-11-2025

The following data show the number of worms quarantined from the GI areas of four groups of muskrats in a carbon tetrachloride anthelmintic study. Conduct a two-way ANOVA test.

I	II	III	IV
338	412	124	389
324	387	353	432
268	400	469	255
147	233	222	133
309	212	111	265

**Solution:**

<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>Degrees of Freedom</i>	<i>Mean Square</i>
<i>Between the groups</i>	<i>62111.6</i>	<i>8</i>	<i>9078.067</i>
<i>Within the groups</i>	<i>98787.8</i>	<i>16</i>	<i>4567.89</i>
<i>Total</i>	<i>167771.4</i>	<i>24</i>	

$$\begin{aligned} \text{Since } F &= MST / MSE \\ &= 9.4062 / 3.66 \\ F &= 2.57 \end{aligned}$$