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NPTEL

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Courses » Design and Analysis of Experiments

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# Unit 13 - Week 12

## Course outline

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Week 12

- Feedback for week 12
- Quiz : Week12\_Assignment12
- Lecture 57 : ANOVA using MINITAB
- Lecture 58 : Factorial Design using MINITAB
- Lecture 59 : Fractional Factorial Design using MINITAB
- Lecture 60 : Response Surface Methodology using MINITAB

## Week12\_Assignment12

The due date for submitting this assignment has passed. **Due on 2018-04-18, 23:59 IST.**

### Submitted assignment

Question 1 & Question 2 are based on the following case:

MINITAB output for a random sample of data is shown below. Some of the quantities are missing. Compute the values of the missing quantities.

Variable	N	Mean	SE Mean	Std. Dev.	Variance	Minimum	Maximum
Y	9	19.96	?	3.12	?	15.94	27.16

1) What is the value of standard error of mean?

4 points

- 1.04
- 1.50
- 2.04
- 19.96

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

1.04

2) What is the value of variance?

4 points

- 3.12
- 9.73
- 10.21
- 19.96

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

9.73

Question 3 to Question 5 are based on the following case:

Consider the following Data sets.

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Circuit Type			Response Time		
1	9	12	10	8	15
2	20	21	23	17	30
3	6	5	8	16	7

The analyst has done one-way ANOVA in MINITAB and has obtained the following results. There are some missing values.

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Treatments	543.6		271.8		0.000402	3.8852938
Error		12	16.9			
Total	746.4	14				

3) The sum of square value of the error is:

4 points

- 202.80  
 543.60  
 271.80  
 746.40

No, the answer is incorrect.

Score: 0

Accepted Answers:

202.80

4) The degree of freedom of the treatment is:

4 points

- 12  
 14  
 2  
 3

No, the answer is incorrect.

Score: 0

Accepted Answers:

2

5) The F value for the test statistics is

4 points

- 14.534  
 15.062  
 16.083  
 17.058

No, the answer is incorrect.

Score: 0

Accepted Answers:

16.083

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