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[Announcements \(announcements\)](#)
[About the Course \(https://swayam.gov.in/nd1_noc19_ma32/preview\)](https://swayam.gov.in/nd1_noc19_ma32/preview) [Ask a Question \(forum\)](#)
[Progress \(student/home\)](#) [Mentor \(student/mentor\)](#)

Unit 10 - Week 8

Course
outline

How to access
the portal

Pre-requisite
Assignment

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

- Test for Influential Observations (unit? unit=48&lesson=49)

Assignment 8

The due date for submitting this assignment has passed. **Due on 2019-09-25, 23:59 IST.**
As per our records you have not submitted this assignment.

1) The h_{ii} is a measure of the distance between X value for the i th case and **1 point**

- the origin
- the mean of X values for all n observations
- the mean of Y values for all n observations
- none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
the mean of X values for all n observations

2) The table below presents the diagonal element h_{ii} of the hat matrix while fitting a multiple linear regression model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$ on 20 observations **1 point**

Transformation and Weighting to correct model inadequacies (Part A) (unit? unit=48&lesson=50)

WEEK 8 - FEEDBACK - Regression analysis (unit? unit=48&lesson=51)

Assignment 8 Solutions (unit? unit=48&lesson=52)

Quiz : Assignment 8 (assessment? name=91)

Week 9

Week 10

Week 11

Week 12

VIDEO
DOWNLOAD

i	h_{ii}
1	.201
2	.059
3	.372
4	.111
5	.248
6	.129
7	.156
8	.096
9	.115
10	.110
11	.120
12	.178
13	.109
14	.148
15	.333
16	.095
17	.106
18	.197
19	.067
20	.050

Given that $SS_{Res} = 109.95$. Is observation 5 outlying in terms of its X - values?

- Yes
 No

No, the answer is incorrect.
Score: 0

Accepted Answers:
No

3) Consider the data in Problem 2. Is observation 15 outlying in terms of its X - values? **1 point**

- Yes
 No

No, the answer is incorrect.
Score: 0

Accepted Answers:
Yes

4) Consider the data in Problem 2. In order to identify possible influential observations, the total number of DFFITS to be computed is **1 point**

- 17
 18
 19
 20

No, the answer is incorrect.
Score: 0

Accepted Answers:
20

5) Consider the data in Problem 2. In order to identify possible influential observations, the total number of DFBETAS to be computed is **1 point**

- 40
 50
 60
 70

No, the answer is incorrect.

Score: 0

Accepted Answers:

60

6) When we fit the model $Y = \beta_0 + \epsilon$ (that is, no X' s) to a set of data, we get **1 point**

- $0 < R^2 < 1$

 $R^2 = 1$

 $R^2 = 0$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$R^2 = 0$

7) Variance of e_2 , $V(e_2)$, equals **1 point**

- $\sigma^2(1 - h_{22})$

 σ^2

 $\frac{\sigma^2}{n}$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$\sigma^2(1 - h_{22})$

8) Let Y be the vector of response values and e be the vector of residuals. Then $e'Y =$ **0 points**

- $e'e$

 0

 $Y'Y$

 $(1 - R^2)SS_T$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$(1 - R^2)SS_T$

