

- ☐ a. None of the mentioned
- ☐ b. 1.98
- ☐ c. 1.282
- ☐ d. 1.645
- ☐ e. 1.658

#### Question 4

Not yet  
answered

Marked out of  
2.00

Flag  
question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F-value
Treatment	-----	-----	-----	-----
Error	-----	76	-----	-----
Total	-----	226	-----	-----

The sum of squares for treatment:

- ☐ a. 150
- ☐ b. 302
- ☐ c. None of the mentioned
- ☐ d. 250
- ☐ e. 100

Next page

Time left 0:50:16

Question 3

Not yet  
answered

Marked out of  
2.00

Flag  
question

An instructor believes that he can improve TOEFL (Test of English as a Foreign Language) scores of his students by more than 100 points after just 5 lessons. The instructor takes a sample of 121 students' test scores after and before they received tutoring. The mean difference was 110 points better after tutoring, with a standard deviation of the difference equal to 12 points. Let  $\mu_D$  denote the mean of the difference: score after tutoring minus score before tutoring.

Assuming  $\alpha = 0.05$ , which of the following is the appropriate critical value?

- ☐ a. None of the mentioned
- ☐ b. 1.98
- ☐ c. 1.282
- ☐ d. 1.645
- ☐ e. 1.658

Question 4

Not yet  
answered

Marked out of  
2.00

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after

Qu  
nav

1

4

7

10

13

16

19

22

25

Finis

Time left 0:59:06

Consider the following computer output.

Predictor	Coef	SE Coef	T	P
Constant	-10.132	1.995	<b>A</b>	0.00
X	0.17429	0.02383	<b>B</b>	0.00

S = 1.318 R-Sq = 74.8% R-Sq(adj) = 73.4%

Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	<b>D</b>	<b>E</b>	<b>F</b>	0.00
Residual Error	<b>C</b>	31.266	1.737		
Total	19	124.200			

The value of A is equal to:

- ☐ a. -5.08
- ☐ b. None of the mentioned
- ☐ c. 5.08
- ☐ d. -1.27
- ☐ e. 1.27

Consider the following computer output.

Coef SE Coef



☐ d. 1.27

☐ e. 1.27

22

23

24

25

26

Question 2

Not yet  
answered

Marked out of  
1.00

Flag  
question

Consider the following computer output.

Finish attempt ...

Predictor	Coef	SE Coef	T	P
Constant	-10.132	1.995	A	0.00
X	0.17429	0.02383	B	0.00

$S = 1.318$   $R\text{-Sq} = 74.8\%$   $R\text{-Sq(adj)} = 73.4\%$

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	D	E	F	0.00
Residual Error	C	31.266	1.737		
Total	19	124.200			

Based on the computer output on the hypothesis test in simple linear regression, the conclusion is:

- ☐ a. For sure, the straight line model is adequate
- ☐ b. There is a strong evidence to support the claim that  $H_0: \beta_1 = 0$
- ☐ c. There is not enough evidence to conclude that the slope differs from 0
- ☐ d. None of the mentioned
- ☐ e. There is no linear relationship between x and Y

Next page

- ☐ c. None of the mentioned
- ☐ d. 2, 7, and 9 respectively
- ☐ e. 2, 5, and 7 respectively

Question 6

Not yet answered

Marked out of 1.00

Flag question

Consider the following computer output.

Predictor	Coef	SE Coef	T	P
Constant	-10.132	1.995	A	0.00
X	0.17429	0.02303	B	0.00

S = 1.318 R-Sq = 74.8% R-Sq(adj) = 73.4%

Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	D	E	F	0.00
Residual Error	C	31.266	1.737		
Total	19	124.209			

The value of E is equal to:

- ☐ a. 46.467
- ☐ b. 89.369
- ☐ c. 71.263
- ☐ d. 92.934
- ☐ e. 53.667

Next page

Stay in touch

Contact Info

<http://www.ju.edu.jo>



Do

Time left 0:42:25

Quiz navigation

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F-value
Treatment	-----	-----	-----	-----
Error	-----	76	-----	-----
Total	-----	226	-----	-----

What are the degrees of freedom for treatment, error and total?

- ☐ a. 3, 5, and 8 respectively
- ☐ b. 2, 6, and 8 respectively
- ☐ c. None of the mentioned
- ☐ d. 2, 7, and 9 respectively
- ☐ e. 2, 5, and 7 respectively

Consider the following computer output.

[Finish attempt ...](#)

Time left 0:42:46

## Question 5

Not yet  
answeredMarked out of  
2.00Flag  
question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F
Treatment	-----	-----	-----	
Error	-----	76	-----	
Total	-----	226		

What are the degrees of freedom for treatment, error and total?

- ☐ a. 3, 5, and 8 respectively
- ☐ b. 2, 6, and 8 respectively
- ☐ c. None of the mentioned
- ☐ d. 2, 7, and 9 respectively
- ☐ e. 2, 5, and 7 respectively

## Question 6

Consider the following computer output.



## Question 7

Not yet  
answeredMarked out of  
2.00Flag  
question

Of 470 randomly selected circuits produced in a photolithography process, 15 are defectives. How large must the sample be if we wish to be at least 95% confident that the error in estimating  $p$  (proportion of defective circuits) is less than 0.02 regardless of the true value of  $p$ ?

- ☐ a. 297
- ☐ b. 2400
- ☐ c. 296
- ☐ d. 1406
- ☐ e. 2401

## Question 8

Not yet  
answeredMarked out of  
2.00Flag  
question

A company produces metal pipes of a standard length and weight. They tested its production quality and found that length of the pipes produced were normally distributed. In a sample of 41 pipes, the standard deviation is 2.3 cm. Engineers claim that the population standard deviation is less than 2 cm.

At a 0.05 level of significant, the critical value for the test is:

- ☐ a. 59.34
- ☐ b. 26.51
- ☐ c. 1.64
- ☐ d. 55.76
- ☐ e. 67.5
- ☐ f. 29.05

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26

Finish a





Time left 0:25:50

Question 11

Not yet  
answeredMarked out of  
2.00Flag  
question

An instructor believes that he can improve TOEFL (Test of English as a Foreign Language) scores of his students by more than 100 points after just 5 lessons. The instructor takes a sample of 121 students' test scores after and before they received tutoring. The mean difference was 110 points better after tutoring, with a standard deviation of the difference equal to 12 points. Let  $\mu_D$  denote the mean of the difference: score after tutoring minus score before tutoring.

The value of test statistic is.

- ☐ a. 8.94
- ☐ b. 89.42
- ☐ c. 9.17
- ☐ d. 81.98

Question 12

Not yet  
answeredMarked out of  
2.00Flag  
question

Consider the following computer output.

Predictor	Coef	SE Coef	T	P
Constant	-50.132	1.907	A	0.00
X	0.17429	0.02303	B	0.00

$S = 1.318$   $R\text{-Sq} = 74.8\%$   $R\text{-Sq(Adj)} = 73.4\%$

Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	D	E	F	0.00
Residual Error	G	31.246	1.737		
Total	19	124.200			

The value of F is equal to:

- ☐ a. 53.5
- ☐ b. None of the mentioned
- ☐ c. 80.25
- ☐ d. 92.93
- ☐ e. 26.75

Quiz  
naviga

1	2
4	5
7	8
10	11
13	14
16	17
19	20
22	23
25	26

Finish at

☐ d. 7.31

☐ e. 5.63

Question 14

Not yet  
answered

Marked out of  
2.00

Flag  
question

Consider the following computer output.

Predictor	Coef	SE Coef	T	P	
Constant	-10.132	1.995	A	0.00	
X	0.17429	0.02383	B	0.00	
S = 1.318 R-Sq = 74.8% R-Sq(adj) = 73.4%					
Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	D	E	F	0.00
Residual Error	C	31.266	1.737		
Total	19	124.300			

What is your estimate of  $\sigma$ :

☐ a. 1.737

☐ b. None of the mentioned

☐ c. 1.318

☐ d. 9.64

Next page

stay in touch

Contact Info

<http://www.ju.edu.jo>

Doc



Time left 0:21:16

## Question 13

Not yet  
answeredMarked out of  
2.00Flag  
question

Consider the following computer output.

Predictor	Coef	SE Coef	T	P
Constant	-10.132	1.995	A	0.00
X	0.17429	0.02383	B	0.00

$S = 1.318$   $R\text{-Sq} = 74.8\%$   $R\text{-Sq}(\text{adj}) = 73.4\%$

Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	D	E	F	0.00
Residual Error	C	31.266	1.737		
Total	19	124.200			

The value of B is equal to:

- ☐ a. None of the mentioned  
☐ b. 17.113  
☐ c. 2.03  
☐ d. 7.31  
☐ e. 5.63

## Question 14

Not yet  
answeredMarked out of  
2.00Flag  
question

Consider the following computer output.

Predictor	Coef	SE Coef	T	P
Constant	-10.132	1.995	A	0.00
X	0.17429	0.02383	B	0.00

$S = 1.318$   $R\text{-Sq} = 74.8\%$   $R\text{-Sq}(\text{adj}) = 73.4\%$

Analysis of Variance					
Source	DF	SS	MS	F	P
Regression	1	D	E	F	0.00
Residual Error	C	31.266	1.737		
Total	19	124.200			

What is your estimate of  $\sigma$ :



Time left 0:32:33

## Question 9

Not yet answered

Marked out of 2.00

Flag question

Consider the following computer output:

One sample T test

 $H_0: \mu = 300, H_1: \mu > 300,$ 

	N	Mean	Stdev (sample standard deviation)
Variable (Sample size)			
x	7	315	16

The significance level is 0.05, P-value for the test is:

- ☐ a.  $0.0025 < P\text{-value} < 0.005$
- ☐ b.  $0.005 < P\text{-value} < 0.01$
- ☐ c.  $0.025 < P\text{-value} < 0.05$
- ☐ d.  $0.05 < P\text{-value} < 0.1$
- ☐ e.  $0.01 < P\text{-value} < 0.025$

## Question 10

Not yet answered

Marked out of 2.00

Flag question

Of 470 randomly selected circuits produced in a photolithography process, 15 are defectives. How large must the sample be if we wish to be 95% confident that the error in estimating  $p$  (proportion of defective circuits) is less than 0.02 regardless of the true value of  $p$ ?

- ☐ a. 2400
- ☐ b. 297
- ☐ c. 1406
- ☐ d. 296

Quiz navigation

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27

Finish attention