

## Assiut University – Faculty of Commerce



## Statistics & Insurance Department

Second Year English Program Subject: Introduction to Statistics Test pages#: 11Pages

Choose th	e best answer	from a, b,	c, d
-----------	---------------	------------	------

	In one month, the total costs (to the nearest pound) of the calls made by 23 males						
	mobile phone owners were:						
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
1) 7	Thefourth-o	class lower bour	ndary is			<u> </u>	
	a) 20			b) 25	3		
	a) 20			0) 2:	,		
	c) 6			d) 5			
2) ו	In one mont	h, the total costs	(to the nearest pou	und) of the calls m	nade by 23 males		
	mobile	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	third-clas	s midpoint equ	als				
	a) 10			b) 17	7.5		
	c) 15			d) 20	)		
3)	la ono mont	h the total costs	(to the pearest pe	und) of the calls m	ado by 22 malos		
5)					ade by 23 males		
	mobile	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	fourth-clas	ss lower bounda	ury is				
	a) 20		•	b) 25	5		
	c) 6			d) 5			
4) ।	c) 6 In one mont	h, the total costs	(to the nearest pou	d) 5 und) of the calls m	nade by 23 males		
4) 1	c) 6 In one mont mobile j	h, the total costs phone owners v	(to the nearest pou vere:	d) 5 und) of the calls m	nade by 23 males		
4) ।	c) 6 In one mont mobile ( Cost	h, the total costs phone owners v 5 to less than 10	(to the nearest pou vere: 10 to less than 15	d) 5 und) of the calls m 15 to less than 20	nade by 23 males 20 to less than 25	25 to less than 30	

r	The value of n is						
	a) 5			b) 10	)		
	c) 6			d) 23	3		
5) '	The mean	for this distribu	ution is compute	ed using the for	mula		
	a) $\frac{\sum mf}{n}$			b) <u>Σ</u>	$\frac{m^2 f}{n}$		
	c) $\frac{\sum m^2 f}{n}$	$\frac{-(\sum mf)^2}{n}$		d) $\frac{\Sigma}{2}$	$\frac{m^2 f - \frac{(\sum mf)^2}{n}}{n}$		
6)	In one mont	h, the total costs	(to the nearest pol	und) of the calls m	nade by 23 males		
	mobile	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
mf	for the fir	st class equal		1) 7	~		
	a) 407.5	)		b) 7.	b) 7.5		
	c) 1			d) N	one of the above		
7)	In one mont mobile j	h, the total costs phone owners v	(to the nearest pou vere:	und) of the calls m	nade by 23 males		
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
$\sum r$	mf =						
	a) 22			b) 40	)7.5		
	c) 7.5			d) 76	593.75		
8)	In one mont	h, the total costs	(to the nearest pou	und) of the calls m	nade by 23 males		
	mobile phone owners were:						
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
Σ	$m^2 f =$						
	a) 407.5	5		b) 25	5		

	c) 7693.	75		d) N	one of the above		
9) I	n one mont	h, the total costs	(to the nearest po	und) of the calls m	nade by 23 males		
	mobile <sub>l</sub>	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	mean valu	ue is		b) 6	270.38		
	c) 17.72	2		d) 5	579.30		
10)							
10)	In one m	onth, the total co	sts (to the nearest	pound) of the cal	Is made by 23 ma	les	
	mobile p	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	a) 5 to 1	ve third-class b ess than 20	oundaries for th	his distribution b) 15	is 5 to less than 20		
	c) 5 to 1	ess than 30		d) a	d) a and b		
11)							
11)	in one m	ionin, ine iolai co	ists (to the hearest	pound) of the cal	Is made by 23 ma	ies	
	mobile p	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	a) 5	ve trequency for	or the second cla	ass 1s b) 23	3		
	c) 6			d) 16	5		
12)	In one m	onth the total of	sts (to the pagest	nound) of the col	ls made by 22 mg	los	
12)	III OHE III			pound) or the car	IS MADE by 25 Ma	165	
	mobile p	ohone owners v	vere:	1	1		
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
<b>7-1</b>	Frequency	1	5	10	6	1	
The	a) 5 to 1	lass 1s ess than 10		b) 10	) to less than 15		
	c) 15 to	less than 20		d) N	one of the above		
12)			-+- /+- +	· · · · · · · · · · · · · · · · · · ·			
13)	13) In one month, the total costs (to the nearest pound) of the calls made by 23 males						

	mobile phone owners were:						
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	median fo	ormula is giver	ı by				
	a) $l_1 + \frac{l_2}{2}$	$\frac{l_2-l_1}{f}(m-c)$		b) <i>l</i> <sub>1</sub>	$+ \frac{f_1 - f_0}{(f_1 - f_0) + (f_1 - f_2)}$	×i	
	c) $l_1 + \frac{l_1}{2}$	$\frac{l_2+l_1}{f}(m-c)$		d) <i>l</i> <sub>1</sub>	$-\frac{f_1-f_0}{(f_1-f_0)+(f_1-f_2)}$	×i	
14)	In one m	onth, the total co	osts (to the nearest	pound) of the cal	Is made by 23 ma	les	
	mobile	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	median v	alue is			-		
	a) 17.5			b) 18	3		
	c) 17.78	3		d) 30	)		
15)	In one m	onth, the total co	osts (to the nearest	pound) of the cal	Is made by 23 ma	les	
	mobile	ohone owners v	vere:				
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
$Q_l$ v	alue is					L]	
	a) 15			b) 10	b) 10		
	c) 12.5			d) N	one of the above		
16)	16) In one month, the total costs (to the nearest pound) of the calls made by 23 males mobile phone owners were:						
	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	distributio	on is	1	1		·]	
	a) symr	netric		b) ur	niform		
	c) asymmetrical Distribution d) None of the above						
17)	In one m mobile j	oonth, the total co	osts (to the nearest vere:	pound) of the cal	Is made by 23 ma	les	

	Cost	5 to less than 10	10 to less than 15	15 to less than 20	20 to less than 25	25 to less than 30	
	Frequency	1	5	10	6	1	
The	mode clas	ss boundaries i	S				]
	a) 15 to	less than 20		b) 25	5 to less than 30		
	c) 10			d) a	and c		
18)	During	a particular	summer montl	n, the eight sa	llespeople in a	a heating and	air-
	conditionii	ng firm sold the	e following nun	nber of central a	air-conditioning	g units: 8, 11, 5,	14,
Č	5, 11, 10, 1	1. Considering	g uns monun as	the statistical p	opulation of int	erest	
The	$\frac{\text{mean form}}{\sum x}$	mula for these	data is given by	$\frac{1}{\sum x}$			
ć	1) <u>N</u>			$\frac{0}{N-1}$			
C	c) $\frac{\sum mf}{N}$			d) $\frac{\sum m^2 f}{N}$			
19) (	During conditionin 3, 11, 16, 1	a particular ng firm sold the 1. Considering	summer montl e following nun g this month as	n, the eight sa nber of central a the statistical p	lespeople in a air-conditioning opulation of int	a heating and g units: 8, 11, 5, erest	air- 14,
The	median fo	or this data is					
8	a) 10.5			b) 11			
C	2) 84			d) 8			
20) (	During conditionin 3, 11, 16, 1	a particular ng firm sold the 1. Considering	summer montl e following nun g this month as	n, the eight sa nber of central a the statistical p	llespeople in a air-conditioning opulation of int	a heating and g units: 8, 11, 5, erest	air- 14,
The	mode for	this data set is					
8	a) 11			b) 13.4			
C	2) 3.7			d) 10.5			
21)	$\sum (x - x)$	μ) equals					
8	ı) O			b) -0.5			
C	c) minimur	n		d) the ra	nge		
22)	<ul> <li>22) During a particular summer month, the eight salespeople in a heating and air-conditioning firm sold the following number of central air-conditioning units: 8, 11, 5, 14, 8, 11, 16, 11. Considering this month as the statistical population of interest</li> </ul>						
the	range is						
8	a) 5			b) 16			

Faculty of Commerce, Assiut University

c) 0	d) 11				
<ul><li>23) During a particular summer month, the eight salespeople in a heating and air-conditioning firm sold the following number of central air-conditioning units: 8, 11, 5, 14, 8, 11, 16, 11. Considering this month as the statistical population of interest</li></ul>					
$\sum x^2$ equals					
a) 84	b) 13.4				
c) 968	d) 11				
<ul> <li>24) During a particular summer more conditioning firm sold the following nu 8, 11, 16, 11. Considering this month a</li> </ul>	1th, the eight salespeople in a heating and air- umber of central air-conditioning units: 8, 11, 5, 14, as the statistical population of interest				
a) 10.75	b) 8				
c) 12.5	d) 16				
<ul><li>25) The sum of the squared deviations always</li><li>a) maximum</li></ul>	) The sum of the squared deviations of the individual items from the arithmetic mean is always a) maximum b) minimum				
c) zero	d) arbitrary value				
26) it is influenced by the extreme value	es				
a) The mode	b) The geometric mean				
c) The mean	d) The mode				
27) A survey that includes every memb	er of the population is called a				
a) sample survey	b) census				
c) prediction	d) case study				
28) A sample drawn in such a way that each element of the population has a chance of being selected is called a					
a) simple random sample	b) random sample				
c) representative sample	d) sample survey				
29) If the value of Correlation Coefficie	ent = +1.2 this indicates				
a) some mistake in our calculations	b) very high degree of positive correlation				
c) positive correlation	d) perfect positive correlation				

30)	in the case of open-ended distributions, it is possible to compute the		
a)	Median	b) Mean	
c)	Range	d) All of the above	
31)	If the mean > median > mode, then	the distribution is	
a)	symmetrical	b) uniform	
c)	skewed to the right	d) skewed to the left	
32) sco	In the case of the qualitative data wored or ranked, it is the most appropriate appropriate the state of the	here the items are not counted or measured but are riate measure of central tendency.	
a)	The mode	b) The mean	
c)	The median	d) The geometric mean	
33)	It is a suitable measure while comparing	g the dispersion of two or more distributions	
a)	The coefficient of variation	b) The standard deviation	
c)	The range	d) The standardized value	
34)	The square of Pearsonian correlatio	n coefficient is known as	
a)	The regression coefficient	b) coefficient of determination	
c)	Spearman Correlation	d) None of the above	
35)	The coefficient of skewness for the	sales is given by	
a)	mean-mode SD	b) $\frac{3(mean-median)}{SD}$	
c)	$\frac{Q_3 - 2Q_2 + Q_1}{Q_3 - Q_1}$	d) all of the above	
36)	Consider the following shape		
	230 240 250 260 2		
This sl	hape is called		
a)	histogram	b) box-whisker Plot	
c)	stem and leaf	d) polygon	
37)	Consider the following shape		



a) 16	b) 65					
c) 50	d) None of the above					
42) Consider the following shape						
These data are	270 280 290 300 310 320 330 340 350					
a) right skewed	b) left skewed					
c) uniform	d) symmetric					
To study the relation between X as we got the following result, $\sum x = 53, \sum xy = 5081, \sum x^2 = 24$ Use the data for (Q44 to Q 55) 43) The linear relationship between X a	<ul> <li>To study the relation between X as independent variable and Y as dependent variable we got the following result,</li> <li>∑ x = 53, ∑ xy = 5081, ∑ x<sup>2</sup> = 247, ∑ y<sup>2</sup> = 110797 and n = 12 Use the data for (Q44 to Q 55)</li> <li>43) The linear relationship between X and Y can be described using</li> </ul>					
a) $X = a + bY$	b) $Y = a + bX^2$					
c) $X = e^{a+by}$	d) a and c					
44) $SS_{xy}$ is given by						
a) $\sum xy - \frac{\sum x \sum y}{n}$	b) $\sum x^2 - \frac{(\sum x)^2}{n}$					
c) $\sum y^2 - \frac{(\sum x)^2}{n}$	d) $\sum x^2 - \frac{(\sum y)^2}{n}$					
45) To study the relation between X as independent variable and Y as dependent variable we got the following result, $\sum x = 53, \sum xy = 5081, \sum x^2 = 247, \sum y^2 = 110797$ and $n = 12$						
$\frac{3S_{xx}}{a} -0.89$	b) -11.42					
c) 0.89	d) None of the above					
<ul><li>46) To study the relation between X as independent variable and Y as dependent variable we got the following result,</li></ul>						
$\sum x = 53, \sum xy = 5081, \sum x^2 = 2$ The suitable correlation coefficient to be	247, $\sum y^2 = 110797$ and $n = 12$					
a) Deerson	b) Spearman					

Faculty of Commerce, Assiut University

c) Chebyshev's	d) Bowley			
47) To study the relation between X as indep we got the following result,	pendent variable and Y as dependent variable			
$\sum x = 53, \sum xy = 5081, \sum x^2 = 247, \sum$ The correlation coefficient value is	$y^2 = 110797$ and $n = 12$			
a) -0.88	b) 0.88 d) None of the above			
<ul><li>48) To study the relation between X as indep we got the following result,</li></ul>	pendent variable and Y as dependent variable			
$\sum x = 53, \sum xy = 5081, \sum x^2 = 247, \sum x^2$	$y^2 = 110797$ and $n = 12$			
The relation between X and Y is a) negative	b) positive			
c) perfect	d) a and b			
49) In the regression line, b can be found fro	m the formula			
a) $\overline{Y} - a\overline{X}$	b) $\overline{X} - a\overline{Y}$			
c) $\frac{SS_{xy}}{SS_{yy}}$	d) $\frac{SS_{xy}}{SS_{xx}}$			
50) To study the relation between X as indep we got the following result,	pendent variable and Y as dependent variable			
$\sum x = 53, \sum xy = 5081, \sum x^2 = 247, \sum x^2$	$y^2 = 110797$ and $n = 12$			
The value of b is a) -99.99	b) -0.88			
c) 99.99	d) None of the above			
51) To study the relation between X as independent variable and Y as dependent variable we got the following result,				
$\sum x = 53$ , $\sum xy = 5081$ , $\sum x^2 = 247$ , $\sum y^2 = 110797$ and $n = 12$				
The determination coefficient value is	b) -99 99			
c) 0.78	d) None of the above			
52) To study the relation between X as inder	endent variable and V as dependent variable			

we got the following result,	we got the following result,				
$\Sigma_{11} = 52 \Sigma_{111} = 5001 \Sigma_{11}^2 = 247 \Sigma_{11}$					
$\sum x = 53, \sum xy = 5081, \sum x^{-} = 247, \sum x^{-}$	$y^{-} = 110797$ and $n = 12$				
The standard deviation of errors value is					
a) 0.53	b) 1.57				
c) 3.19	d) None of the above				
53) To study the relation between X as indep we got the following result,	pendent variable and Y as dependent variable				
$\sum x = 53, \sum xy = 5081, \sum x^2 = 247, \sum x^2$ The expected value of Y when X= 5	$\sum y^2 = 110797$ and $n = 12$				
a) 5	b) 95.56				
c) 104.4	d) None of the above				
54) If all points cluster in an ascending line	this would suggest what?				
a) There would be a weak positive relationship	b) There would be a strong positive relationship				
c) There would be a strong negative relationship	d) There would be a non-linear relationship				
55) In a questionnaire, respondents are asked to mathe	rk their marital status. Marital status is an example of				
a) ordinal scale	b) nominal scale				
c) ratio scale	d) interval scale				
<ul> <li>56) The mean value for X is 53.2, the mean value of Y is 27.9, the regression coefficient of Y on X equals -1.5 and the regression coefficient of X on Y is -0.2</li> <li>When X = 60 the value of X is</li> </ul>					
a) 12	b) 17.7				
c) Cannot determine	d) None of the above				
<ul> <li>57) The mean value for X is 53.2, the mean value of Y is 27.9, the regression coefficient of Y on X equals -1.5 and the regression coefficient of X on Y is -0.2</li> <li>The coefficient of correlation between X and Y is</li> </ul>					
a) 0.55	b) -0.55				
c) 0.3	d) -0.3				

With Best Wishes