

UNIVERSITY OF SWAZILAND**DEPARTMENT OF SOCIOLOGY****FINAL EXAMINATION PAPER NOVEMBER/DECEMBER 2010****TITLE OF PAPER:** **RESEARCH METHODS****COURSE CODE:** **SOC 201****TIME ALLOWED:** **THREE (3) HOURS**

- INSTRUCTIONS:**
- 1. SECTION ONE (I) IS COMPULSORY**
 - 2. ANSWER ANY THREE (3) QUESTIONS FROM SECTION (II)**
 - 3. THIS PAPER CONSISTS OF FIVE (5) PAGES**

THE QUESTION PAPER MUST NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

SECTION ONE (I)

Section one is compulsory answer **all four (4)** questions in this section

<u>Question No. 1</u>	<u>Multiple Choice Choose the Correct answer</u>	(15 marks)
-----------------------	--	-------------------

- (i) Sociologists use the term “empirical evidence” to refer to:
 (a) information that is based on a society’s traditions.
 (b) information that squares with common sense.
 (c) information we can verify with our senses.
 (d) information that most people agree is true.

- (2) Imagine that you are going to measure the age of a number of respondents taking part in a survey. As you record the data, you are using the concept of ‘age’ as:
 (a) a theory.
 (b) a hypothesis.
 (c) a variable.
 (d) an axiom.

- (3) What process involves deciding exactly what is to be measured when assigning a value to a variable?
 (a) operationalization.
 (b) reliability.
 (c) conceptualization.
 (d) validity.

- (4) What is the term for the value that occurs most often in a series of numbers?
 (a) the mean
 (b) the median
 (c) the mode
 (d) All of the above are correct.

- (5) Examine the following series of numbers: 1, 2, 3, 4, 10. What is the median value?
 (a) 4
 (b) 3
 (c) 2
 (d) 1

- (6) A hypothesis states that increasing a person’s formal education results in increased earnings over a life time. In this hypothesis, ‘higher education’ is the:
 (a) dependent variable.
 (b) independent variable.
 (c) correlation coefficient.

- (d) effect.
- (7) Two variables are said to display correlation if:
(a) they are caused by the same factor.
(b) one occurs before the other.
(c) both measure the same thing.
(d) they vary together.
- (8) You are doing research and you never stop to think about the possible importance of gender at all. Your work could be criticized for the problem called:
(a) androcentrism.
(b) overgeneralization.
(c) gender blindness.
(d) employing double standards.
- (9) What research method was used by Philip Zimbardo's study, the 'Stanford County Prison'?
(a) the experiment
(b) the survey
(c) participant observation
(d) secondary analysis
- (10) A small number of people used to represent an entire population is called a
(a) sampling frame.
(b) target group.
(c) sample.
(d) closed-format group..
- (11) Three researchers wish to test the effects of playing music during an exam on the test performance of students. They conduct an experiment in which one test taking class hears music and another does not. In experimental terms, the class hearing music is called:
(a) the control group.
(b) the dependent variable.
(c) the placebo.
(d) the experimental group.
- (12) One disadvantage of conducting interviews is that this research method:
(a) does not permit follow-up questions.
(b) does not allow subjects' answers to be detailed.
(c) results in a very low response rate.
(d) may easily allow the researcher to influence the subjects' response.

- (13) In Willian Foote Whyte's study of Cornerville (Street Corner Society), which research method did he use?
- experiment.
 - survey.
 - participant observation.
 - secondary analysis.
- (14) In a questionnaire, asking respondents to identify their income level from a number of possible categories represents which of the following:
- a closed-ended format.
 - an open-ended format
 - a self-administered format.
 - None of the above is correct.
- (15) What term refers to the arithmetic average of a series of numbers?
- the mean
 - the median
 - the mode
 - All the above are correct.

Question No.2 Identify each of the following as either nominal, ordinal, interval or ratio variable. (5 marks)

- number of words spelt correctly in a spelling test
- education: literate or illiterate
- air pressure in pounds per square inch
- shirt size: small, medium, large
- temperature on campus at 1300 hours

Question No.3 For a normally distributed population with a mean = 50 and a standard deviation = 10, calculate the following. (10 marks)

What proportion of values or scores:

- fall between the mean and a score of 47?
- are higher than 47?
- are lower than 53?
- Are above 72?

Question No.4 Identify the units of analysis and the variables in the following research questions/hypotheses. (10 marks)

- A student's performance is directly related to his or her class attendance.
- Does economic development lower the birth rate?
- Are older people more afraid of crime than younger people?
- The higher the proportion of female employees, the lower the wages in the textile factories.
- The longer the engagement period, the longer the marriage.

SECTION TWO (II)
ANSWER ANY THREE (3) QUESTIONS FROM SECTION TWO
20 MARKS FOR EACH QUESTION TOTAL MARKS 60

Question No. 1

What are the principal stages of field research? Describe the basic approaches of gaining access to formal organizations, public settings and private setting.

Question No. 2

Discuss the three broad areas of ethical concern in research.

Question No. 3

What is content analysis? Discuss the steps involved in doing content analysis giving examples.

Question No. 4

What are the advantages of using samples? Discuss the types of non-probability sampling techniques by giving examples.

Question No. 5

A courier service provider is interested in evaluating the speed of courier delivery. They dispatch parcels to Mbabane from a variety of distances and record the number of days it takes for the parcel to arrive. The data is shown below

<u>Days to deliver</u>	<u>Distance</u>		
	50 kms	100kms	150kms
One	5	10	15
Two	10	10	10
Three or more	15	5	10

Run the Chi-square test and interpret the results.

Question No. 6

The following hypothetical data represent the views of seven individuals showing the years of education they have completed and the grade in school at which they think sex education should begin:

Years of education (X)	7	4	13	16	10	22	19
Grade to begin Sex Education (Y)	13	11	9	7	5	3	1

Calculate the Pearson's correlation coefficient and interpret the result.

Table F. Critical Values of Chi Square

df	Level of significance for a directional test					
	.10	.05	.025	.01	.005	.0005
	Level of significance for a non-directional test					
df	.20	.10	.05	.02	.01	.001
1	1.64	2.71	3.84	5.41	6.64	10.83
2	3.22	4.60	5.99	7.82	9.21	13.82
3	4.64	6.25	7.82	9.84	11.34	16.27
4	5.99	7.78	9.49	11.67	13.28	18.46
5	7.29	9.24	11.07	13.39	15.09	20.52
6	8.56	10.64	12.59	15.03	16.81	22.46
7	9.80	12.02	14.07	16.62	18.48	24.32
8	11.03	13.36	15.51	18.17	20.09	26.12
9	12.24	14.68	16.92	19.68	21.67	27.88
10	13.44	15.99	18.31	21.16	23.21	29.59
11	14.63	17.28	19.68	22.62	24.72	31.26
12	15.81	18.55	21.03	24.05	26.22	32.91
13	16.98	19.81	22.36	25.47	27.69	34.53
14	18.15	21.06	23.68	26.87	29.14	36.12
15	19.31	22.31	25.00	28.26	30.58	37.70
16	20.46	23.54	26.30	29.63	32.00	39.29
17	21.62	24.77	27.59	31.00	33.41	40.75
18	22.76	25.99	28.87	32.35	34.80	42.31
19	23.90	27.20	30.14	33.69	36.19	43.82
20	25.04	28.41	31.41	35.02	37.57	45.32
21	26.17	29.62	32.67	36.34	38.93	46.80
22	27.30	30.81	33.92	37.66	40.29	48.27
23	28.43	32.01	35.17	38.97	41.64	49.73
24	29.55	33.20	36.42	40.27	42.98	51.18
25	30.68	34.38	37.65	41.57	44.31	52.62
26	31.80	35.56	38.88	42.86	45.64	54.05
27	32.91	36.74	40.11	44.14	46.96	55.48
28	34.03	37.92	41.34	45.42	48.28	56.89
29	35.14	39.09	42.69	46.69	49.59	58.30
30	36.25	40.26	43.77	47.96	50.89	59.70
32	38.47	42.59	46.19	50.49	53.49	62.49
34	40.58	44.90	48.60	53.00	56.06	65.25
36	42.88	47.21	51.00	55.49	58.62	67.99
38	45.08	49.51	53.38	57.97	61.16	70.70
40	47.27	51.81	55.76	60.44	63.69	73.40
44	51.54	56.37	60.48	65.34	68.71	78.75
48	55.99	60.91	65.17	70.20	73.68	84.04
52	50.33	65.42	69.83	75.02	78.62	89.27
56	64.66	69.92	74.47	79.82	83.51	94.46
60	68.97	74.40	79.08	84.58	88.38	99.61

The table lists the critical values of chi square for the degrees of freedom shown at the left for tests corresponding to those significance levels which head each column. If the observed value of χ_{obs}^2 is greater than or equal to the tabled value, reject H_0 . All chi squares are positive.

Source: Table F is taken from Table IV of Fisher and Yates, *Statistical Tables for Biological, Agricultural and Medical Research*, published by Longman Group Ltd., London (previously published by Oliver and Boyd, Ltd., Edinburgh), and by permission of the authors and publishers.

$$\text{CHI-SQUARE } \chi^2_{abs} = \sum \frac{(O-E)^2}{E}$$

Table A. Proportions of Area under the Standard Normal Curve

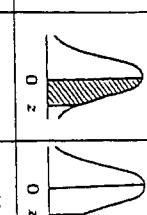
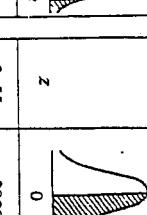
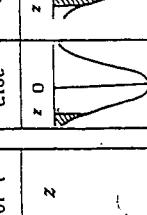
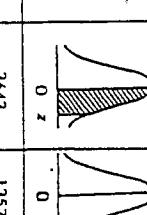
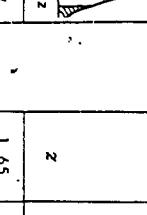
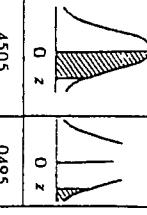
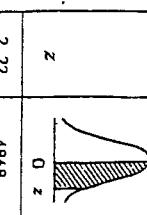
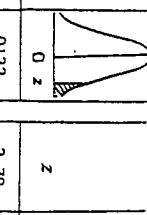
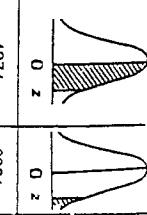
								
0.00 .0000	0.5000	0.55 .2088	0.60 .2912	0.65 .4505	0.70 .4945	0.75 .2222	0.80 .4868	0.85 .0132
0.01 .0040	.4960	0.56 .2123	0.61 .2877	0.66 .4515	0.71 .0485	0.76 .2223	.4871	.0129
0.02 .0080	.4920	0.57 .2157	.58 .2843	0.67 .4525	0.72 .0475	0.77 .4875	.0125	.2.80
0.03 .0120	.4880	0.58 .2190	.60 .2810	0.68 .4535	0.73 .0465	0.78 .4878	.0122	.4.975
0.04 .0160	.4840	0.59 .2224	.63 .2776	0.69 .4545	0.74 .0455	0.79 .4881	.0119	.0024
0.05 .0199	.4801	0.60 .2257	.64 .2743	0.70 .4554	0.75 .0446	0.80 .4884	.0116	.0023
0.06 .0239	.4761	0.62 .2291	.67 .2709	0.71 .4564	0.76 .0436	0.81 .4887	.0113	.0022
0.07 .0279	.4721	0.63 .2324	.68 .2676	0.72 .4573	0.77 .0427	0.82 .4890	.0110	.0021
0.08 .0319	.4681	0.63 .2357	.68 .2643	0.73 .4582	0.78 .0418	0.83 .4893	.0107	.4.977
0.09 .0359	.4641	0.64 .2389	.69 .2611	0.74 .4591	0.79 .0409	0.84 .4896	.0104	.0020
0.10 .0398	.4602	0.65 .2422	.69 .2578	0.75 .4599	0.80 .0401	0.85 .4898	.0102	.2.84
0.11 .0438	.4562	0.66 .2454	.71 .2544	0.76 .4608	0.81 .0392	0.86 .4901	.0099	.4.977
0.12 .0478	.4522	0.67 .2486	.71 .2514	0.77 .4616	0.82 .0384	0.87 .4904	.0096	.4.979
0.13 .0517	.4483	0.68 .2517	.71 .2483	0.78 .4625	0.83 .0375	0.88 .4906	.0094	.0018
0.14 .0557	.4443	0.69 .2549	.74 .2451	0.79 .4633	0.84 .0367	0.89 .4909	.0091	.0017
0.15 .0596	.4404	0.70 .2580	.74 .2470	0.80 .4641	0.85 .0359	0.90 .4911	.0089	.2.94
0.16 .0636	.4364	0.71 .2611	.74 .2500	0.81 .4649	0.86 .0351	0.91 .4913	.0087	.4.984
0.17 .0675	.4325	0.72 .2642	.74 .2538	0.82 .4656	0.87 .0344	0.92 .4916	.0084	.0016
0.18 .0714	.4286	0.73 .2673	.74 .2577	0.83 .4664	0.88 .0336	0.93 .4918	.0082	.0015
0.19 .0753	.4247	0.74 .2704	.74 .2606	0.84 .4671	0.89 .0329	0.94 .4920	.0080	.0014
0.20 .0793	.4207	0.75 .2734	.74 .2636	0.85 .4678	0.90 .0322	0.95 .4922	.0078	.2.99
0.21 .0832	.4168	0.76 .2764	.74 .2666	0.86 .4686	0.91 .0314	0.96 .4925	.0075	.4.985
0.22 .0871	.4129	0.77 .2794	.74 .2696	0.87 .4693	0.92 .0307	0.97 .4927	.0073	.0013
0.23 .0910	.4090	0.78 .2823	.74 .2726	0.88 .4700	0.93 .0301	0.98 .4929	.0071	.3.02
0.24 .0948	.4052	0.79 .2852	.74 .2756	0.89 .4706	0.94 .0294	0.99 .4931	.0069	.3.03
0.25 .0982	.4013	0.80 .2881	.74 .2786	0.90 .4713	0.95 .0287	1.00 .4933	.0066	.3.04
0.26 .1026	.3974	0.81 .2910	.74 .2810	0.91 .4719	0.96 .0281	1.01 .4934	.0064	.3.05
0.27 .1064	.3936	0.82 .2939	.74 .2833	0.92 .4726	0.97 .0274	1.02 .4935	.0062	.3.06
0.28 .1103	.3897	0.83 .2967	.74 .2853	0.93 .4732	0.98 .0268	1.03 .4936	.0060	.4.987
0.29 .1141	.3859	0.84 .2995	.74 .2873	0.94 .4738	0.99 .0262	1.04 .4938	.0058	.0013
0.30 .1179	.3821	0.85 .3023	.74 .2900	0.95 .4744	0.99 .0256	1.05 .4940	.0056	.0012
0.31 .1217	.3783	0.86 .3051	.74 .2922	0.96 .4750	0.99 .0250	1.06 .4941	.0054	.0011
0.32 .1255	.3745	0.87 .3078	.74 .2942	0.97 .4756	0.99 .0244	1.07 .4943	.0052	.0010
0.33 .1293	.3707	0.88 .3106	.74 .2962	0.98 .4762	0.99 .0239	1.08 .4945	.0050	.0009
0.34 .1331	.3669	0.89 .3133	.74 .2982	0.99 .4768	0.99 .0233	1.09 .4946	.0048	.0008
0.35 .1368	.3632	0.90 .3159	.74 .3000	1.00 .4772	0.99 .0228	1.10 .4948	.0046	.0007
0.36 .1406	.3594	0.91 .3186	.74 .3020	1.01 .4778	0.99 .0222	1.11 .4949	.0044	.0006
0.37 .1443	.3557	0.92 .3212	.74 .3040	1.02 .4783	0.99 .0217	1.12 .4950	.0042	.0005
0.38 .1480	.3520	0.93 .3228	.74 .3060	1.03 .4788	0.99 .0212	1.13 .4951	.0040	.0004
0.39 .1517	.3483	0.94 .3264	.74 .3080	1.04 .4793	0.99 .0207	1.14 .4952	.0038	.0003
0.40 .1554	.3446	0.95 .3289	.74 .3100	1.05 .4803	0.99 .0202	1.15 .4953	.0036	.0002
0.41 .1591	.3409	0.96 .3315	.74 .3120	1.06 .4808	0.99 .0197	1.16 .4954	.0034	.0001
0.42 .1628	.3372	0.97 .3340	.74 .3140	1.07 .4813	0.99 .0192	1.17 .4955	.0032	.0000
0.43 .1664	.3336	0.98 .3365	.74 .3160	1.08 .4818	0.99 .0187	1.18 .4956	.0030	.0000
0.44 .1700	.3300	0.99 .3389	.74 .3180	1.09 .4823	0.99 .0182	1.19 .4957	.0028	.0000
0.45 .1736	.3264	1.00 .3413	.74 .3200	1.10 .4828	0.99 .0177	1.20 .4958	.0026	.0000
0.46 .1772	.3228	1.01 .3448	.74 .3220	1.11 .4833	0.99 .0172	1.21 .4959	.0024	.0000
0.47 .1808	.3192	1.02 .3461	.74 .3240	1.12 .4838	0.99 .0167	1.22 .4960	.0022	.0000
0.48 .1844	.3156	1.03 .3485	.74 .3260	1.13 .4843	0.99 .0162	1.23 .4961	.0020	.0000
0.49 .1879	.3121	1.04 .3508	.74 .3280	1.14 .4848	0.99 .0157	1.24 .4962	.0018	.0000
0.50 .1915	.3085	1.05 .3531	.74 .3300	1.15 .4853	0.99 .0152	1.25 .4963	.0016	.0000
0.51 .1950	.3050	1.06 .3554	.74 .3320	1.16 .4858	0.99 .0147	1.26 .4964	.0014	.0000
0.52 .1985	.3015	1.07 .3577	.74 .3340	1.17 .4863	0.99 .0142	1.27 .4965	.0012	.0000
0.53 .2019	.2981	1.08 .3599	.74 .3360	1.18 .4868	0.99 .0137	1.28 .4966	.0010	.0000
0.54 .2046	.2946	1.09 .3621	.74 .3379	1.19 .4873	0.99 .0132	1.29 .4967	.0008	.0000

Table A (continued)

Table J. Random Numbers

22	17	68	65	84	68	95	23	92	35	87	01	22	57	51	61	09	43	95	06	58	24	82	03	47
19	36	27	59	46	13	79	93	37	55	39	77	32	77	09	85	52	05	30	62	47	83	51	63	74
16	77	23	02	77	09	61	87	25	21	28	06	24	25	93	16	71	13	59	78	23	05	47	47	25
78	43	76	71	61	20	44	90	34	64	97	67	63	99	61	69	81	21	99	21	61	81	77	23	23
03	28	28	26	08	73	37	32	04	05	69	30	16	09	05	88	69	58	28	99	35	07	44	75	47
53	23	53	64	39	07	10	63	76	35	87	03	04	79	88	08	13	13	85	51	55	34	57	72	69
93	32	53	64	39	41	10	76	47	27	52	06	79	79	45	82	63	18	27	44	69	66	92	19	09
78	75	58	54	74	92	38	70	96	93	52	06	79	79	45	82	34	22	13	03	00	97	79	08	06
23	68	35	26	00	99	53	93	62	38	53	70	05	48	34	56	65	05	61	86	90	92	10	70	80
61	96	48	95	03	07	16	39	33	66	98	56	10	56	79	77	21	30	27	12	90	49	22	13	62
15	39	25	70	99	93	86	52	77	65	15	33	59	05	28	22	87	46	07	47	86	06	98	29	06
58	71	96	30	24	18	46	23	34	27	85	13	99	24	44	49	18	09	79	49	74	16	32	02	02
18	87	00	43	31	57	90	12	02	07	23	47	37	17	31	54	08	18	27	38	90	16	95	86	70
88	56	53	27	59	33	35	72	67	47	77	34	55	45	70	08	18	27	38	90	16	95	86	70	75
57	35	27	33	72	24	53	63	94	09	41	10	76	47	91	44	04	95	49	66	39	60	04	59	81
48	50	86	54	48	22	06	34	72	52	82	21	15	65	20	33	29	94	71	11	15	91	19	13	03
61	96	48	95	03	07	16	39	33	66	60	75	86	90	68	24	64	19	35	51	56	61	87	39	12
36	93	89	41	26	29	70	83	03	51	99	74	20	52	36	87	09	41	15	09	98	60	16	93	03
18	87	00	43	31	57	90	12	02	07	23	47	37	17	31	54	08	18	27	38	90	16	95	86	70
88	56	53	27	59	33	35	72	67	47	77	34	55	45	70	08	18	27	38	90	16	95	86	70	75
59	72	95	84	74	49	41	31	06	45	18	64	84	73	31	65	52	53	37	97	15	31	54	14	17
12	96	88	17	31	65	19	69	02	83	60	75	86	90	68	24	64	19	35	51	56	61	87	39	12
85	94	57	24	16	92	09	84	38	76	22	00	27	69	85	29	49	81	94	78	70	31	94	47	90
38	64	43	59	98	98	77	87	68	07	91	51	67	62	44	40	98	05	93	78	23	31	65	41	18
53	44	09	42	72	00	41	86	79	79	68	47	22	00	20	35	35	51	51	51	100	81	63	22	55
40	76	66	16	84	57	99	30	37	63	32	08	58	37	40	13	68	97	87	64	81	07	83	29	13
62	17	79	18	05	12	59	52	57	02	22	07	90	47	03	28	14	11	30	79	20	56	20	11	72
95	17	82	06	53	31	51	10	96	46	92	06	88	07	77	56	11	50	81	69	40	23	72	51	39
35	76	22	42	92	96	11	83	44	80	34	68	35	48	77	33	42	40	94	60	73	96	53	97	61
16	29	13	56	41	85	47	04	66	08	34	72	57	59	13	82	73	40	65	15	38	26	61	70	04
77	80	20	75	82	91	36	74	43	53	71	82	13	54	00	78	45	63	98	35	55	03	36	67	68
46	40	66	44	44	91	36	74	43	53	71	91	18	95	58	24	16	74	11	53	44	10	13	85	57
37	56	08	18	09	77	53	84	46	47	31	91	18	95	58	24	16	74	11	53	44	10	13	85	57
61	65	61	68	66	37	27	47	39	19	84	83	70	07	48	53	31	40	06	71	95	06	79	88	54
93	43	69	64	07	34	18	04	52	35	56	27	69	24	86	61	85	53	33	83	71	49	34	07	87
21	66	60	13	99	11	20	99	45	18	48	13	93	53	34	18	79	49	90	65	77	37	79	49	18
95	20	47	97	97	27	37	83	28	71	00	06	41	41	74	45	89	09	39	84	51	67	11	53	49
97	86	21	78	73	10	65	81	93	59	58	76	17	14	97	04	76	62	16	17	17	95	76	20	53
69	92	05	34	13	59	71	74	17	32	27	55	10	24	19	23	81	82	13	74	34	17	68	02	55
04	31	17	21	56	33	73	99	19	87	26	72	39	27	67	53	67	57	68	93	60	61	97	22	61
61	66	98	03	91	87	14	77	43	96	43	00	65	98	50	07	98	99	46	50	47	91	44	31	61
85	93	85	86	88	72	87	68	62	40	16	06	10	89	40	23	21	34	74	97	16	38	03	49	63
21	74	32	47	45	73	96	07	94	52	09	65	90	77	47	25	76	16	19	33	53	05	70	53	30
15	69	53	82	80	79	96	23	53	10	65	39	07	16	49	45	33	02	43	70	02	87	40	41	45
04	89	08	04	49	20	21	14	68	86	87	63	93	95	17	11	29	01	95	80	35	14	97	35	33
87	18	15	89	79	85	43	01	72	73	08	61	74	51	69	89	74	39	82	15	07	98	11	68	46
98	83	71	94	23	59	50	99	52	08	52	85	08	40	87	80	61	63	31	24	44	81	91	96	87
10	08	58	21	66	73	68	49	39	31	89	85	84	46	06	59	73	19	85	23	65	09	99	75	63
47	90	56	10	08	88	62	84	27	83	42	29	72	13	19	66	56	45	65	79	20	71	33	09	39
22	85	61	68	90	49	64	92	85	44	16	40	12	89	88	50	14	49	81	06	01	82	77	45	12
67	80	43	79	33	12	83	11	41	16	25	58	19	68	70	77	02	54	50	52	53	43	37	15	26
27	62	50	65	72	79	44	61	40	15	14	53	40	55	39	27	31	58	50	48	11	43	39	25	25
33	78	80	87	15	14	47	47	07	16	54	96	87	53	32	40	36	40	96	76	84	91	77	72	73
13	13	92	66	99	47	24	49	57	74	32	25	43	62	17	10	97	11	69	84	97	41	88	96	07