



Applied Statistics for Journalism

Test 2 (A)

Student: _____

Group: _____

Date: _____

Exercise 1. In the following, we present the results of the “LATINO BAROMETER 2017” study carried out by the CIS.

Question 13

Personally, is the image that you have of Latin America very good, good, bad or very bad?

	Age of the interviewee						
	TOTAL	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 and older
Very good	2,4	2,5	3,8	3,1	2,2	2,9	1,0
Good	34,4	38,4	40,8	40,3	39,1	30,9	23,5
Neither good nor bad	31,1	25,8	27,5	28,5	29,7	30,6	38,3
Bad	21,8	24,7	20,7	21,9	21,3	23,4	20,7
Very bad	3,2	2,5	1,5	2,5	4,0	6,1	2,6
Don't know	6,4	5,1	4,7	3,1	2,9	5,9	13,4
Refuse	0,7	1,0	0,9	0,6	0,9	0,3	0,7
(N)	(2.465)	(198)	(338)	(484)	(455)	(376)	(614)

Assuming that the previous results are representative of people of both genders aged 18 and over residing in Spain, answer the following questions.

- | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|
| a) If a person is selected at random among those who are 65 or older, what is the probability that he/she responds "Very good"? (1 point) |
| b) If a person is selected at random, what is the probability that this person responds "Very good" and he/she is 65 or older? (1 point) |
| c) If a person is selected at random, what is the probability that this person responds "Very good" or he/she is 65 or older? (1 point) |
| d) If a person is selected at random from those who answer "Very good", what is the probability that this person is 65 or older? (1 point). |
| e) Does the answer to question two of the questionnaire depend on the age of the respondent? Justify your answer. (2 points) |

Exercise 2. The following table is taken from the aforementioned study.

Question 15

At the present time, and speaking about the relations of Spain with Latin America, would you say that there is much, little, or no relationship in each of the following aspects?

	Much	Fairly	Little	None	Don't know	Refuse	(N)
Economic	10,8	35,0	26,3	3,4	22,9	1,6	(2.465)
Political	8,3	30,2	31,5	5,2	23,0	1,8	(2.465)
Cultural	15,0	37,1	21,7	3,1	21,3	1,9	(2.465)
Scientific / Technical	3,9	16,4	32,3	8,2	37,3	1,9	(2.465)
Sports	14,2	34,9	19,2	3,7	26,0	1,9	(2.465)

a) Calculate a confidence interval of 95% for the proportion of people who respond "Much" in the economic aspect. Interpret it (2 points)

Exercise 3. This study also included questions regarding the political orientation of the respondent. The following table summarizes the results:

Question 26

In politics, one usually speaks of 'left' and 'right'. On a scale where '0' is the 'left' and '10' the 'right', where would you be?

0 Left	2,6
1	2,5
2	8,2
3	11,9
4	11,2
5	22,0
6	7,6
7	5,9
8	3,8
9	0,5
10 Right	0,9
Don't know	17,5
Refuse	5,5
(N)	(2.465)
Mean	4,41
Standard deviation	1,99
(N)	(1.899)

a) Comment the following statement "The mean of political self-definition corresponds to the center (5)". Justify your answer by a bilateral hypothesis test. (2 points)