

SOCI 33004: SOCIAL STATISTICS (Lecture)

Summer I 2026

Homework 3

(Due on June 12 (Friday), 2026 @ 12:00 pm)

NAME:

STUDENT ID:

Question 1 (25 pts)

For the following cases, please compute their Z scores, and percentiles

X_i	\bar{X}	S	Z_i	<i>Percentile</i>
25	32	4		
98	99	2.5		
76	73	5		
58	48	7		
150	145	10		

Question 2 (25 pts)

The following data show the information of “sex” and “being afraid of walking at night for 12 respondents.” Based on the data, answer the following questions,

<u>Case #</u>	<u>Sex</u>	<u>Afraid of walking at nights</u>
1	Male	No
2	Male	No
3	Male	No
4	Female	Yes
5	Female	Yes
6	Male	No
7	Female	Yes
8	Female	Yes
9	Female	No
10	Male	Yes
11	Female	No
12	Female	No

Produce the crosstabulation, be sure to include the cell percentages, the row margins, the column margins, and the total number of cases in the table

Question 3 (20 pts)

Explain what is wrong with the following statements:

A) Gender is positively related to church attendance (10 pts)

B) Race is negatively related to income (10 pts)

Question 4 (30 pts)

Explain why two variables that are associated are not necessarily causally related