AS2 (Assignment 2, Unit 5): Dependent Measures t-test

Please write your answers in red ☺

An investigator is interested in whether the number of dresses tried on in a department store for a wedding will be affected by viewing a fashion magazine. A sample of 5 women was measured on how many dresses each tried on before and after viewing a fashion magazine. The before-and-after scores are as follows:

Subject	Before	After
1	6	2
2	5	7
3	9	6
4	1	3
5	8	5

l. What is the research's hypothesis?

_____That viewing fashion magazine will affect how many dresses try on by women_____

2. What is the null hypothesis?

_____Fashion magazine will NOT affect how many dresses that women try on_____

3. What is the independent variable? _____ fashion magazine_____

4. What is the dependent variable? _____ the number of dresses_____

5. What is the name of the *research design*?_____Within-Subject design_____

6. What is the appropriate *hypothesis test* to analyze these data? _____Dependent-Measures t-test_____

7. Please run the appropriate SPSS analysis and cut and paste your results here:

T-Test

[DataSet0]

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	VAR00001	4.6000	5	2.07364	.92736
	VAR00002	5.8000	5	3.11448	1.39284

Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			One-Sided p	Two-Sided p
Pair 1	VAR00001 - VAR00002	-1.20000	2.94958	1.31909	-4.86238	2.46238	-.910	4	.207	.414

8. Based on your SPSS results, please answer the following questions:

(a) What decision did you make? Reject or fail to reject the null? ____fail to reject the null_____

(b) Please write your "statistical statement": ___t(4)=-.910, p>.05_____

(c) Please interpret the results of your analysis "in words" and relating DIRECTLY back to the research question.

_____The mean of women before viewing fashion magazine was M=5.8 with a SD=3.11. The mean of women after viewing fashion magazine was M=4.6 with a SD=2.07. The data fail to reach significance. That viewing fashion magazine will no effect on how many dress women try on. t(4)=-.910, p>.05 _____

(d) Is there a probability of Type I error? Yes _____ No___v___

(e) Is there a probability of Type II error? Yes___v____ No_____