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?

___Viewing a fashion magazine will have an effect on how many dresses women try in a store.
_____

2. What is the null hypothesis?

___Viewing a fashion magazine will not have an effect on the number of dresses women try in a store.
_____

3. What is the independent variable? ____Viewing a magazine_____

4. What is the dependent variable? _____The number of dresses tried

_____

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:

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							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	VAR00001 - VAR00002	-1.20000	2.94958	1.31909	-4.86238	2.46238	-.910	4	.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? _____Failed to reject Ho_____

(b) Please write your "statistical statement": _____t(4)= -.910, p>0.05_____

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

___The mean number of dresses before viewing a magazine was M=5.8 with SD=_3.11448. The mean number of dresses after viewing a magazine was M=4.6 with SD=2.07364. Our data was insignificant. Our data doesn't support that viewing a magazine will have an effect on the number of dresses tried, t(4)= -.910, p>0.05

_____
_____
_____

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

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