Name:	
Date:	

Unit 9 Quiz

This is an open note, take home quiz. These questions are very relevant for the test!

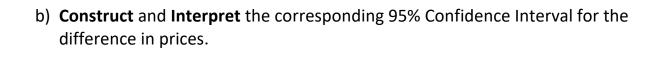
You will need to watch the end of the lecture video where I go over this content! Submit by 5pm if possible (slightly later than said in class)!

Answer the following 3 questions. Show your work (or explain your calculations).

Setup: A new college student wants to purchase a new laptop and is deciding whether to buy a Windows laptop or a Mac laptop. He is open to any model of laptop and wants to compare prices of Windows vs Macs. Assume prices of Windows and Mac laptops are normally distributed.

From a random sample of 12 Windows laptops, there was an average price of \$760 and standard deviation of \$130. From a random sample of 9 Mac laptops, there was an average price of \$1,100 and a standard deviation of \$200.

a) **Determine** if it is appropriate to construct a Confidence Interval for the difference in prices?



c) Lets say we to conducted a hypothesis test using the following hypotheses:

$$H_0$$
: $\mu_{Windows}$ - μ_{Mac} = 0
 H_A : $\mu_{Windows}$ - μ_{Mac} \neq 0

Confidence Interval from part (h) (so do

Based on your Confidence Interval from **part (b)** (so don't actually do the test), would you reject or fail to reject H₀? **Explain** why.