

Name: _____
Date: _____

Unit 10 Quiz

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

Setup: We asked a random sample of 500 from various age groups if they prefer working on a Mac or a Windows laptop. The data are shown in a contingency table below.

	Windows	Mac	<i>Total</i>
15-20	22	41	63
21-30	85	197	282
31-50	61	94	155
<i>Total</i>	168	332	500

- a) **Conduct** a hypothesis test for the data above to determine whether laptop brand preference is dependent on age group. Use a 10% level of significance.

- b) In order to find the expected counts in class, we had to calculate the joint probabilities. We did this by multiplying the two marginal probabilities. Why were we allowed to do this? **Explain.**