Does bread lose its vitamins when stored? Small loaves of bread were prepared with flour that was fortified with a fixed amount of vitamins. After baking, the vitamin C content of two loaves was measured. Another two loaves were baked at the same time, stored for three days and then the vitamin C content was measured. The units are milligrams per hundred grams of flour (mg/100g). Here are the data:

|  |  |  |
| --- | --- | --- |
| Immediately after baking: | 47.62 | 49.79 |
| Three days after baking: | 21.25 | 22.34 |

a). When bread is stored, does it lose vitamin C? To answer this question, perform a two-sample t test for these data. Be sure to state your hypotheses, the test statistic with degrees of freedom, and the P-value.

b). Give a 90% confidence interval for the amount of vitamin C lost.