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4. A farmer wants to know whether there is a difference in the mean number of oranges that grow on trees fertilized with the current fertilizer, Brand C, or a new fertilizer, Brand N. The farmer randomly assigns 58 trees to be treated with Brand C and 58 trees to be treated with Brand N. The number of oranges from each tree is recorded. The summary statistics by fertilizer brand are shown in the table.

Summary Statistics for the Number of Oranges by Fertilizer Brand

	n	Mean	Standard Deviation
Brand C	58	141	15
Brand N	58	148	19

At the $\alpha = 0.05$ significance level, do the data provide convincing statistical evidence that the mean number of oranges on trees fertilized with Brand C is different from the mean number of oranges on trees fertilized with Brand N for all trees similar to those in the study?