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| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Past records suggest that the mean annual income, http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%25nv8%3Fpva%3D2%3F%2Cpva%3D, of teachers in state of Connecticut is less than or equal to the mean annual income, http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%25nv8%3Fpva%3D1%3F%2Cpva%3D, of teachers in California. In a current study, a random sample of http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?16teachers from Connecticut and an independent random sample of http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?16teachers from California have been asked to report their mean annual income. The data obtained are as follows:   |  |  | | --- | --- | |  | **Annual income in dollars** | | **Connecticut** | |  | | --- | |  |   61232, 52419, 41600, 60430,  60230, 51314, 64200, 48079,  52768, 46352, 48467, 47780,  46028, 54026, 55293, 51946,  46447, 47503, 51745, 47994,  51761, 47533, 37881, 47779,  56983 | | **California** | |  | | --- | |  |   52147, 40675, 48056, 39410,  52748, 44311, 49773, 47811,  46377, 39950, 55382, 47995,  51972, 43399, 41513, 42878,  52964, 50167, 48355, 51124,  45334, 38502, 49980, 55258,  47998. |  |  |  |  | | --- | --- | --- | | [http://www.phoenix.aleks.com/aleks/gif/student/excelw.gif](http://www.phoenix.aleks.com/alekscgi/x/Isl.exe/1o_u-IgNsIkasNW8D8A9PVVf0eTFOLZnRtzRMGDlhUIS9HkNxmBZYc_zqrzsiTHEWTDya2eoKtUH4B06bEdg6GhahRYsXLncMOzeDLalUspNioPJgg7oJIq/data_996238365.xls?1oBffQwqllavsnKUTPiiQeUlv7nnNwb1Y_d_n0sEljE-YNWhMlazZ66mQI--gf1cv4m5vnbUAakPQPhNlvw0-7wF6M3ng2R2) |  | [Send data to Excel](http://www.phoenix.aleks.com/alekscgi/x/Isl.exe/1o_u-IgNsIkasNW8D8A9PVVf0eTFOLZnRtzRMGDlhUIS9HkNxmBZYc_zqrzsiTHEWTDya2eoKtUH4B06bEdg6GhahRYsXLncMOzeDLalUspNioPJgg7oJIq/data_996238365.xls?1oBffQwqllavsnKUTPiiQeUlv7nnNwb1Y_d_n0sEljE-YNWhMlazZ66mQI--gf1cv4m5vnbUAakPQPhNlvw0-7wF6M3ng2R2) |   The population standard deviation for mean annual income of teachers in Connecticut and in California are estimated as http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?5033and http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?5233, respectively. It is also known that both populations are approximately normally distributed. At the http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?3%2D23level of significance, is there sufficient evidence to reject the claim that the mean annual income of teachers in state of Connecticut is less than or equal to the mean annual income of teachers in California? Perform a one-tailed test. Then fill in the table below.  Carry your intermediate computations to at least three decimal places and round your answers as specified in the table. (If necessary, consult a [list of formulas](http://www.phoenix.aleks.com/alekscgi/x/Isl.exe/1KN7t6rZq66LqIkajmBtEEGKRa-NLRwDsvh6voiNYQFxJ7e7DZvWDo_zkCynQXq4FdcIyc4pmqYqFqF9Vla83XmJO54Cz5tn6HIZVKqD6VWPvI6SyC8q?17e4iU4uD9Gaf1iwBocUrcrbgBsYVfThbGg6qfH0gMNMgkKuRoXgmRgaMGDs6OYy7qm4ebw3cAJbvy3qZsVT9AVNd-eRvro).) | | |  |  | | --- | --- | | |  | | --- | |  | | |  |  | | --- | |  |  |  | | --- | |  |   Top of Form  The null hypothesis Ho:  The alternate Hypothesis H1:  The Type of statistic test (Z,t,chi square,F):  The value of the test statistic (Round to at least three decimal places):  The p-value (Round to at least three decimal places):  Can we reject the claim that the mean annual income of teachers from Conneticut is less than or equal to the mean annual income of teachers from california? yes or noBottom of Form |  |  |  | |

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