Step 1: [State the null hypothesis](http://www.statisticshowto.com/probability-and-statistics/null-hypothesis/#state): H0:μ=100  
Step 2: State the [alternate hypothesis](http://www.statisticshowto.com/what-is-an-alternate-hypothesis/): H1: μ ≠100(two tailed test)  
Step 3: State the critical region i.e. alpha value. As it is not mentioned we take it to be by default 5%(0.05). As this is a two-tailed test, split the alpha into two.  
0.05/2=0.025  
Step 4: Find the [z-score](http://www.statisticshowto.com/probability-and-statistics/z-score/) associated with the alpha value. You’re looking for the area in one of the tails. A z-score for 0.75(1-0.025=0.975) is 1.96. As this is a two-tailed test, you would also be considering the left tail (z=1.96)

Z = μ(sample) – μ(population)/(standard deviation/n)1/2  
Step 5: Find the [test statistic](http://www.statisticshowto.com/test-statistic/) using this formula:   
z=(108-100)/(15/√36)=12.3935.  
Step 6: If Step 5 is less than -1.96 or greater than 1.96 (Step 3), [reject the null hypothesis](http://www.statisticshowto.com/support-or-reject-null-hypothesis/). In this case, it is greater, so we reject the null hypothesis H0.