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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Note: Best if viewed at Full Screen]  Obseved Results (Table A)   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | pH | 7.5 | 7 | 6.75 | 6.25 | 6.5 | 6.5 | 7 | 6.5 | 5.75 | Total | | Alive | 15 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 13 | 132 | | Dead | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 | | Total | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 135 |   Chi-Square = Sum (Observed Results - Expected Results)^2 / Expected Results  Degrees of Freedom = (#Rows-1)(#Columns -1)  Expected Results = (Row Total)(Column Total) / Table Total     Expected Results (Table B)   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | pH | 7.5 | 7 | 6.75 | 6.25 | 6.5 | 6.5 | 7 | 6.5 | 5.75 | | Alive | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | | Dead | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 |     Chi-Square Results (Table C)     |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | pH | 7.5 | 7 | 6.75 | 6.25 | 6.5 | 6.5 | 7 | 6.5 | 5.75 | | Alive | 0.008 | 0.008 | 0.008 | .030 | 0.008 | 0.008 | 0.008 | 0.008 | 0.19 | | Dead | 0.33 | 0.33 | 0.33 | 1.33 | 0.33 | 0.33 | 0.33 | 0.33 | 8.33 |    Chi-Square = sum of values in (Table C)  Chi-Square = 12.272727...  p-value = 0.1394439           This data largely shows that the there is non-significance due to the very high chi-square value in regards to the [chi-square chart](http://docs.google.com/chisquare1.jpg) and the significance level at which it is tested.  If you were to test at a low level of .15 or 15%, you would get a significance.  Actually, any level higher than .1394439 or approximately 14% would produce non-significant results.  This is what the p-value represents, shown above.   Also the assumptions of a chi-square test were violated in which 1) all calls must be at least one and 2) No more than 20% of the cells can be less than five.  Both of these were not met, so the results are questionable as well.  Overall, the data proves to be non-significant, against our expectations.  [Back to Data](http://docs.google.com/data.html) |

*This Web Site is Best viewed with 256 or more colors.*

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