MET CS 555

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Assignment 3

(1)

图表, 散点图

描述已自动生成

(2) Correlation coefficient is 0.6991094. It told us that Number of meals with fish has potential relationship with Total Mercury in mg/g.

(3) Equation: Total Mercury in mg/g = 1.688 + 0.276 Number of meals with fish

(4)  is 0.276 coefficient of Number of meals with fish.  is 1.688 coefficient of constant.

(5)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Df** | **Sum Sq** | **Mean Sq** | **F value** | **Pr(>F)** |
| **a** | 1 | 309.239297237826 | 309.239297237826 | 93.6885267192901 | 6.01325600393475E-16 |
| **Residuals** | 98 | 323.470249672174 | 3.30071683338953 | NA | NA |

H0:= 0 H1:  no = 0

df = 100 -2 =98 degree of freedom

/2 = 0.05

T98,0.05 = 1.66 which means reject H0 if t >1.66 or t <-1.66

t =  / SE. = 0.27595/0.02851 = 9.679

Confidence interval =( 0.9679 +1.66\* 0.02851)(0.9679 – 1.66\*0.02851) =

(0.9205734 , 1.0152266)

R-square = Reg SS / Total SS = 309.2393 / 632.7096 = 0.4888