

REGRESSION ANALYSIS WORK SHEET			1. DATE	2. ANALYST			
3. FUNCTION/WORK CENTER			4. CODE	5. WORK UNIT			
6. SOURCE X			7. SOURCE Y				
8. ITEM NO.	a. PERIOD	b. WORK UNITS PROCESSED X	c. PRODUCTIVE HOURS Y	d. X	Y	e. X <sup>2</sup>	f. Y <sup>2</sup>
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
		$\Sigma X$	$\Sigma Y$	$\Sigma XY$		$\Sigma X^2$	$\Sigma Y^2$
<b>TOTALS</b>							
REMARKS							

**REGRESSIONS ANALYSIS  
COMPUTATION**

Enter appropriate figures in the method of least square and compute in the coefficient of correlation

$$(\Sigma X)^2 = ( \quad )^2 = \underline{\hspace{2cm}}$$

$$(\Sigma Y)^2 = ( \quad )^2 = \underline{\hspace{2cm}}$$

$$(\Sigma X) (\Sigma Y) = ( \quad ) ( \quad ) = \underline{\hspace{2cm}}$$

$$r = \frac{N \Sigma XY - \Sigma X \Sigma Y}{\sqrt{[N \Sigma X^2 - (\Sigma X)^2] [N \Sigma Y^2 - (\Sigma Y)^2]}}$$

$$r = \frac{\quad}{\sqrt{[ \quad ] [ \quad ]}}$$

$$r = \text{COEFFICIENT OF CORRELATION} = \underline{\hspace{2cm}}$$

**STRAIGHT LINE  
FORMULA**

Enter the appropriate figures from line 9 to compute the straight line formula (method of least square)

$$y = a + bx$$

$$a = \frac{(\Sigma Y) (\Sigma X^2) - (\Sigma X) (\Sigma XY)}{n(\Sigma X^2) - (\Sigma X)^2}$$

$$b = \frac{n(\Sigma XY) - (\Sigma X) (\Sigma Y)}{n(\Sigma X^2) - (\Sigma X)^2}$$

$$a = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

a = y intercept

b = slope