

[Assignment no 7]

① $b_{yx} = 2.8$ $b_{xy} = -0.5$

$$r = \sqrt{b_{yx} \times b_{xy}} = \sqrt{2.8 \times -0.5} = \sqrt{-1.4}$$

Since this is
not real

they cannot be the regression equation number.

②

$$Y = ab^x$$

$$Y = 0.7207 \times 1.3823^x$$

$$\ln Y = \ln a + x \ln b$$

$\ln Y$	X	$X \ln Y$	X^2	$(\ln Y)^2$
0	1	0	1	
0.13232	2	0.36464	4	
0.58778	3	1	9	
0.91629	4	1	16	
1.2809	5	1	25	
1.5476	6	1	36	
1.8671	7	1	49	
2.2083	8	1	64	
	$\Sigma X = 36$		204	

$$Y = -0.3823 + 0.3241X$$

$$a \ln a = -0.3283$$

$$a = 0.7207$$

$$b = 1.3827$$

$$\ln b = 0.3241$$

Ans $y = 0.7207 \times 1.3827^n$

~~3~~ I think the equation ① is incorrect

Please check the Question