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$$y-8=-0.65(x-6)$$

 $y-8=-0.65.x+3.9$

$$y-8 = -0.65.2 + 3.9$$

$$y = -0.65 2 + 11.9$$

Regression equation of x on y
$$x - \bar{x} = h_{x} \left(u - \bar{u} \right)$$

$$\frac{b_{2y}}{\sum x^{2}/N - (\sum x/N)(\sum y/N)}$$

$$= \frac{\sum x^{2}/N - (\sum x/N)^{2}}{42 \cdot 8 - 48}$$

$$\chi - 6 = -1.3(y-8)$$

$$2 = -1.34 + 16.4$$

Obtain the two regression equation from the follow dota. win a

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	$\bar{z} = \bar{z}x/N = 7$ $\bar{y} = \bar{z}y/N = 5$
	Regression equation of y on 2
	$(y-\bar{y}) = b_{yx}(z-\bar{x})$
	(3)
	y - 5 = 0.257(x - 7)
	y-5 = 0.2572 - 1.799
	$y = 0.257 \times + 9.201$
Maria	Regression equation of 2 on y
Į.	$(x-\bar{x}) = b_{\chi y} (y-\bar{y})$
	40.117
	7-7 = 0.45y - 2.25
	z = 0.45y + 4.75
	1: D. 4h. C.11
6.	Obtain the two regression equations from the Toll
	owing data and predict the value of x when y=40
	obtain the two regression equations from the following data and predict the value of x when y=40 and value of y when x=50
	25 18
	χ 16 22 28 13 70
	4 60 62 63
	Also find the correlation coefficient
	Po U
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21 68 1428 441 4627 25 61 1525 625 3721 26 18 70 1260 324 4900 18 70 1260 324 4900 21 49 453 9621 3275 29395 $ b_{yz} = \sum xy = \sum xy = \sum x^2 = \sum y^2 = \sum x^2/N - (\sum x/N)(\sum y/N) $ $= \sum x^2/N - (\sum x/N)^2$ $= \sum x^2/N - (\sum$			-		361		1 13	
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18 70 1260 324 4900 $zz = zy = zxy = zx^2 = zy^2 = zy^2 = 149 453 9621 3275 29395$ $b_{yz} = \frac{\sum xy N - (zx N)(zy N)}{\sum x^2 N - (zx N)^2}$ $= \frac{1374.42 - 21.28 \times 64.71}{467.85 - 452.83}$ $= \frac{1374.42 - 1377.02}{15.02}$ $= -0.1731$ $Regression equation of y on x$ $y - y = b_{yx}(x - x)$ $y - 64.71 = -0.1731(x - 21.28)$ $y - 64.71 = -0.1731x + 3.6835$	39				625			
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$b_{yz} = \frac{\sum xy/N - (\sum x/N)(\sum y/N)}{\sum x^2/N - (\sum x/N)^2}$ $= \frac{1374.42 - 2! \cdot 28 \times 64.71}{467.85 - 452.83}$ $= \frac{1374.42 - 1377.02}{15.02}$ $= -0.1731$ Regression equation of y on x $y - y = b_{yx}(x - x)$ $y - 64.71 = -0.1731(x - 21.28)$ $y - 64.71 = -0.1731x + 3.6835$						29395	. Kr. 1	
$\frac{5x^{2}/N - (2x/N)^{2}}{1374.42 - 2! \cdot 28 \times 64.71}$ $\frac{467.85 - 452.83}{1374.42 - 1377.02}$ $\frac{15.02}{15.02}$ $= -0.1731$ $\frac{y - y}{2} = \frac{byx}{(x - x)}$ $\frac{y - 64.71}{y - 64.71} = -0.1731(x - 21.28)$ $\frac{y - 64.71}{y - 64.71} = -0.1731x + 3.6835$	Sq. V		1		1 7 - 11		y i	- Control of the Cont
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$= 1374.42 - 21.28 \times 64.71$ $= 467.85 - 452.83$ $= 1374.42 - 1377.02$ $= -2.6$ $= -2.6$ $= -0.1731$ Regression equation of y on x $y - y = b_{yx}(x - \overline{x})$ $y - 64.71 = -0.1731(x - 21.28)$ $y - 64.71 = -0.1731x + 3.6835$		yz -	Σ λ	2/N - (ZX/N)2	2		
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Regression equation of y on χ $y-y=by\chi(x-\bar{\chi})$ $y-64.71=-0.1731(x-21.28)$ $y-64.71=-0.1731\chi+3.6835$	V		」 5. 0	2	7.110	1 70 00	la de la companya de	1 1
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y-y=byx(x-x) $y-64.71=-0.1731(x-21.28)$ $y-64.71=-0.1731x+3.6835$		Reave	ssion	equation	of S.	40 - 2	31 X	
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-0.17312 + 68.3935when 2 = 50 y = -8.655 + 68.3935 y = 59.73ZXY/N - (ZX/N) (ZY/N) Σχ2/N - (Σ4/N)2 1374.42 - 1377.02 4199.28- 4187.93 - 0.2290 Regression equation of 2 on 4 2- = bzy (y-y) 2-21.28 = -0.2290(y-64.71) x - 21.28 = -0.2290y + 14.81 x = -0.2290y + 36.09when y= 40 2 = -9.16+36.09 $\chi = 26.93$ 9.7 Given, variance of $z(\sigma z^2) = g$, regression equation are 8x-10y+66=0, 40x-18y+214=0 Find i) Average value of 2e and y. ii) (asselation coefficient between two var iii) standard deviation of y

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