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Tutorial - 2

Ans 1 If $\beta_2 > 3$ then distribution is Leptokurtic.

Ans 2 $\mu_2 = 16$
$\mu_3 = -64$

Coeff. of Skewness $(\beta_1) = \frac{\mu_3^2}{(\mu_2)^3}$

$= \frac{(-64)^2}{(16)^3}$

$= 1$

Ans 3 Range of coefficient of correlation r is $-1 \leq r \leq 1$

Ans 5 $b_{xy} = 0.16$
$b_{yx} = 4$

Correlation coefficient $= b_{xy} \cdot b_{yx} = r^2$

$= 0.16 \times 4 = r^2$
$r = \pm 0.8$

Ans 4 $\Sigma xy = 2638$, $\bar{x} = 14$, $\bar{y} = 17$, $n = 10$

$$cov(x,y) = \frac{1}{n}\Sigma xy - \bar{x}\bar{y}$$

$$= \frac{1}{10}(2638) - 238$$

$$cov(x,y) = 25.8$$