Topic Name: Mubina Ashrafi

x (weight)	y (price)	xy	x^2	$\bar{x}$	$\bar{y}$	$\bar{xy}$	$\bar{x^2}$
2	35	70	4			1555	164
4	60	240	16	Sum			
5	20	100	25	=32	330	Avg	164/7
3	50	150	9			222.142	=23.4
6	55	300	36	Average	330/7		
5	55	275	25	32/7	=47.142		
7	60	420	49	=4.571			

$\bar{x}$ = Mean (x) = 4.571

$\bar{y}$ = Mean (y) = 47.142

$\bar{xy}$ = Mean (xy) = 222.142

$\bar{x^2}$ = Mean (x^2) = 23.429

Slope, $M = \dfrac{\bar{X}\bar{Y} - \bar{XY}}{(\bar{x})^2 - \bar{x^2}}$

$= \dfrac{(4.571)\cdot(47.142) - 222.142}{(4.571)^2 - 23.429}$

$= \dfrac{-6.656}{-2.535} = 2.625$

Topic Name : Day : Time : Date : / /

$$C = \bar{Y} - M\bar{X}$$

$$= 47.142 - (2.625 \times 4.571)$$

$$= 35.143$$

The price of vegetable when the weight is Price = MX (weight) + C

$$= 2.625 \times (6) + 35.143$$

$$= 50.893$$

weight	Actual Price y_i	Predicted Price y_{pred}	Residuals $(y_i - y_{pred})$
2	35	40.393	-5.393
4	60	45.643	14.357
5	20	48.268	-28.268
3	50	43.018	6.982
6	50	50.893	-0.893
5	55	48.268	6.732
7	60	53.518	6.482

Topic Name : _____ Day: _____

Time : Date : / /

Mean squared Error: $\frac{1}{N}\sum(y_i - \hat{y})^2$

$= 167.3099$

Mean Absoulate error $= \frac{1}{N}\sum|(y_i - \hat{y})|$

$= 9.872$