

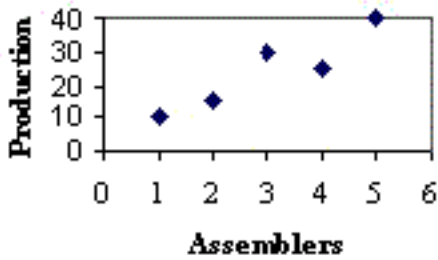
The production department of Celltronics International wants to explore the relationship between the number of employees who assemble a subassembly and the number produced. As an experiment, 2 employees were assigned to assemble the subassemblies. They produced 9 during a one-hour period. Then 4 employees assembled them. They produced 15 during a one-hour period. The complete set of paired observations follows.

Number of Assemblers	One-Hour Production (units)
2	9
4	15
1	6
5	26
3	19

The dependent variable is production; that is, it is assumed that different levels of production result from a different number of employees.

 [Click here for the Excel Data File](#)

- b. A scatter diagram is provided below. Based on it, does there appear to be any relationship between the number of assemblers and production?



(Click to select) , as the number of assemblers (Click to select) , so does the production.

- c. Compute the correlation coefficient. **(Negative amounts should be indicated by a minus sign. Round s_x , s_y and r to 3 decimal places.)**

X	Y	$X - \bar{X}$	$Y - \bar{Y}$	$(X - \bar{X})^2$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
2	9		-6		36	
4	15	1		1		0
1	6		-9		81	
5	26	2		4		22
3	19		4	0		0

$\bar{X}$ = $\bar{Y}$ = s_x =

s_y = r =