Correlation and Regression

Word spelled correct <u>Before</u> and <u>After</u>

Name	X	Y
Bill	17	20
John	10	13
Sam	12	15
Jim	15	18
Fred	6	9
James	14	?

Bi variate distribution- the scores on two variables are paired

What score would put for James?

Lost Julius what would you put down?

A) Correlation- degree of relationship- perfect predictability?

Correlation Coefficient, Person's correlation, "r"	X	Y	Z_x	Z_y
	10	20		
-Negative Correlation	8	16		
	12	24		
-Positive Correlation	2	4		
	11	22		
-Zero Correlation	6	12		

The Persons correlation (r) coefficient ranges between -1.0 & 1.00.
It tells you strength and directions

$$ r = \frac{N \Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{[N \Sigma x^2 - (\Sigma x)^2] * [N \Sigma y^2 - (\Sigma y)^2]}} $$

pairs