

SECTION A**QUESTION 1**

A study is done with twelve employees in a company to understand the relationship between the number of rest days given in a year and the productivity of each employee.

The results are shown in the table below:

Rest days given	5	2	9	1	3	12	10	4	4	5	8	6
Productivity of the employee	0,87	0,65	0,9	0,58	0,7	0,91	0,88	0,78	0,72	0,91	0,82	0,62

(a) Calculate the correlation coefficient. (Round off correct to four decimal places.)

(2)

(b) Refer to your correlation coefficient and circle the letter that best describes the relationship. Only one letter must be circled.

- A Fairly strong, negative correlation
- B Very weak, positive correlation
- C Fairly strong, positive correlation
- D Perfect, positive correlation

(1)

(c) If the equation of the least squares regression line is $y = A + Bx$, calculate the values of A and B. Give answers correct to four decimal places.

(2)

(d) Should the regression line in (c) be used to predict the productivity of an employee if thirty rest days were given to the employee in a year? (Explain your answer.)

(2)

[7]

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Xiang Xie

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