Minimum Payment Calculation

A captain went shopping last month and spent $1,200.00 on their new credit card with a 19% APR. Their goal is to pay this balance off before making any new purchases on their card. The captain decides that they will pay the minimum balance of $25.00 per month until the balance is paid off. After 5 months, how much will the captain have paid in interest so far and how much will they still have to pay back?

Use the formulas provided to calculate the interest and balance for each month.

$$I = \frac{R}{12} \text{ x } B$$

$$N = (B + I) - P$$

Where:

I = interest
R = the annual percentage rate
B = original balance
N = new balance
P = monthly payment

The first month is calculated for you as an example. First, calculate the interest accumulated due to the unpaid balance.

$$I = \frac{0.19}{12} \text{ x } \$1{,}200.00$$

$$I = 0.0158 \text{ x } \$1{,}200.00$$

$$I = \$18.96$$

$$N = (\$1{,}200.00 + \$18.96) - \$25.00$$

$$N = \$1193.96$$

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Repeat this process for the remaining months, changing the starting balance, B, each month. For example, for month 2, we will use $1193.96 as the balance instead of $1,200.00. Complete the table with your calculations.

Month / Billing Cycle	Interest	Monthly payment	Balance
1	$18.96	$25.00	$1193.96
2			
3			
4			
5			
Total interest Paid			

Balance after 5 months = _____

Total interest paid after 5 months = _____

Consider how much the captain has spent on interest fees and how much they still owe after five months. What suggestions do you have for them? How much could the captain have saved if they made larger payments OR if they paid their credit card bill in full? .