**Exercises for The National Holiday**

**(Wednesday, February 7, 2024)**

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Class: ……………SE1917……………………….

We define: ***m*** *is the second-to-last digit of the student ID.*

***n*** *is the last digit of the student ID.*

**Q1.**

Given a discretely formatted function: . Answer the following questions:

The left-limit is at : -1/2

The right-limit is at : -0,01991485667

The value of  is: -1/2

Does there exist a limit at ? (Yes or No)………No…………………..

Is it continuous at ? (Yes or No) ……………No……………………..

The left-limit is at : …………………0……………………………

The right-limit is at : ……………0………………………………..

The value of  is: …………0………………………………………..

Does there exist a limit at ? (Yes or No)………Yes…………………..

Is it continuous at ? (Yes or No) ………………Yes…………………..

**Q2.**

Using Newton’s method to find  of the equation  and ?

Answer: …………0,2569682288………………………….(Give your answer to 9 decimal places)

**Q3.**

Given the data table of function f as follows:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *x* |  |  |  |  |  |  |  |  |  |  |  |  | 2 |
|  |  |  |  |  |  |  |  |  | *m* |  |  |  | *n* |

Answer: Right-endpoint: ………………0,325………….…………….(Give your answer to 4 decimal places)

Left-endpoint: ………………-3,675…………………….(Give your answer to 4 decimal places)

**Q4.**

Using Mid-point, Left-endpoint and Right-endpoint Rule to approximate  with *ten subintervals*?

Answer: Mid-point: ………………0,4015234373………….…………….(Give your answer to 9 decimal places)

Left-endpoint: ………………0,3935797245…………………….(Give your answer to 9 decimal places)

Right-endpoint: …………0,4160317803………………………...(Give your answer to 9 decimal places)

**Q5.**

A particle moves along a line so that its velocity at time *t* is  (measured in meters per second). Find the displacement and total distance traveled of the particle during the time  ?

Answer: …………93,5227…… …toward the right………………….(toward the left or right ?) (Give your answer to 4 decimal places)

**How to submit your assignment:**

You just need to fill in your answers into this Word or PDF file. Reminder: ***Fill in only the answers***. Then submit the filled-in Word or PDF file via email to *dungttm12@fpt.edu.vn* with the email subject titled “**TET Exercises\_MSSV**”.

MSSV is your ID student.

**Have a good day!**